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Effective: 14-January-2010
Expires: 11-February-2010

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INSTRUMENT APPROACH PROCEDURE CHARTS

A IFR ALTERNATE AIRPORT MINIMUMS

Standard alternate minimums for non precision approaches are 800-2 (NDB, VOR, LOC, TACAN, LDA, VORTAC, VOR/DME, ASR or WAAS LNAV); for precision approaches 600-2 (ILS or PAR). Airports within this geographical area that require alternate minimums other than standard or alternate minimums with restrictions are listed below. NA - means alternate minimums are not authorized due to unmonitored facility or absence of weather reporting service. Civil pilots see FAR 91. IFR Alternate Airport Minimums: Ceiling and Visibility Minimums not applicable to USA/USN/USAF. Pilots must review the IFR Alternate Airport Minimums Notes for alternate airfield suitability.

NAME ALTERNATE MINIMUMS

ARCATA-EUREKA, CA

ARCATA ..... **ILS Rwy 32[13]**
ILS or LOC/DME Rwy 32[23]
RNAV (GPS) Rwy 1[34]
RNAV (GPS) Rwy 14[35]
RNAV (GPS) Rwy 32[35]
VOR/DME Rwy 14[3]

[1]LOC, NA.
[2]ILS, 700-2.
[3]NA when local weather not available.
[4]Categories A, B, 1000-2½; Category C, 1000-2¾; Category D, 1000-3.
[5]Category D, 800-2¼.

BISHOP, CA

EASTERN SIERRA RGNL .... **LDA/DME Rwy 16[1]**
RNAV (GPS) Y Rwy 12[23]
RNAV (GPS) Z Rwy 12[24]
VOR or GPS-A,3300-3[5]
VOR/DME or GPS-B[6]

[1]Categories A,B, 2300-2; Categories C,D, 2300-3.
[2]NA when local weather not available.
[3]Categories A, B 2500-2; Category C, 2500-3.
[4]Categories A, B, 2300-2; Category C, 2300-3.
[5]NA when Bishop altimeter setting not available.
[6]Categories A,B, 3200-2; Categories C,D, 3200-3.

CHICO, CA

CHICO MUNI ..... **VOR/DME Rwy 13L**
VOR/DME Rwy 31R

NA when control tower closed except for operators with approved weather reporting service.

CONCORD, CA

BUCHANAN FIELD ..... **LDA Rwy 19R**
RNAV (GPS) Rwy 19R[1]

NA when control tower closed.
[1]Categories A, B, 1000-2; Categories C,D, 1000-3.

NAME ALTERNATE MINIMUMS

CRESCENT CITY, CA

JACK MC NAMARA
FIELD ..... **RNAV (GPS) Rwy 11**

NA when local weather not available.

DAVIS WOODLAND WINTERS, CA

YOLO COUNTY ..... **RNAV (GPS) Rwy 16**
RNAV (GPS) Rwy 34

NA when local weather not available.

FRESNO, CA

FRESNO YOSEMITE
INTL ..... **ILS or LOC/DME Rwy 29R**
LOC Rwy 11L
VOR/DME or TACAN Rwy 11L
VOR/DME or TACAN Rwy 29R

Category E, 900-2¾.

HANFORD, CA

HANFORD MUNI ..... **RNAV (GPS) Rwy 32**
VOR-A

NA when local weather not available.

HAYWARD, CA

HAYWARD
EXECUTIVE ..... **LOC/DME Rwy 28L[1]**
RNAV (GPS) Y Rwy 28L[2]
RNAV (GPS) Z Rwy 28L[2]
VOR or GPS-A[3]

[1]NA when control tower closed.
[2]NA when local weather not available.
[3]Category C, 800-2¼; Category D, 800-2½.

HOLLISTER, CA

HOLLISTER MUNI ..... **RNAV (GPS) Rwy 31**

NA when local weather not available.

LIVERMORE, CA

LIVERMORE MUNI ..... **ILS Rwy 25R[1]**
RNAV (GPS) Rwy 25R

Category D, 800-2¼.
[1]NA when control tower closed.

NAME ALTERNATE MINIMUMS

MADERA, CA

MADERA MUNI ..... **RNAV (GPS) Rwy 12**
RNAV (GPS) Rwy 30
NA when local weather not available.

MARYSVILLE, CA

YUBA COUNTY ..... **RNAV (GPS) Rwy 14**
RNAV (GPS) Rwy 32
NA when local weather not available.

MERCED, CA

CASTLE ..... **ILS or LOC/DME Rwy 31**
RNAV (GPS) Rwy 13
RNAV (GPS) Rwy 31
VOR/DME Rwy 31
NA when local weather not available.

MERCED RGNL/MACREADY
FIELD ..... **ILS or LOC Rwy 30**[1]
LOC BC Rwy 12[1]
RNAV (GPS) Rwy 30[2]
VOR Rwy 30[2]
[1]NA when class E airspace not in effect.
[2]NA when local weather not available.

MODESTO, CA

MODESTO CITY-COUNTY-HARRY
SHAM FIELD ..... **ILS or LOC/DME Rwy 28R**[1]
RNAV (GPS) Rwy 28R
NA when local weather not available.
[1]NA when control tower closed.

MONTEREY, CA

MONTEREY
PENINSULA ..... **ILS or LOC Rwy 10R**[12]
LOC/DME Rwy 28L[13]
RNAV (GPS) Rwy 10L[4]
RNAV (GPS) Y Rwy 10R[5]
RNAV (GPS) Y Rwy 28L[6]
[1]NA when control tower closed.
[2]ILS, Categories A,B,C, 800-2; Category D, 900-2¾. LOC, Category D, 900-2¾.
[3]Categories A,B, 1500-2, Categories C,D, 1500-3.
[4]Categories A,B, 1100-2.
[5]Category D 900-2¾.
[6]Categories A, B, 1400-2; Category C, 1400-3.

NAME ALTERNATE MINIMUMS

NAPA, CA

NAPA COUNTY ..... **LOC Rwy 36L**[1]
RNAV (GPS) Y Rwy 36L[23]
RNAV (GPS) Z Rwy 36L[34]
VOR Rwy 6[5]
[1]NA when control tower closed; Category D, 1200-3.
[2]Categories A, B, 1600-2; Categories C, D, 1600-3.
[3]NA when local weather not available.
[4]Category C, 900-2¾; Category D, 1200-3.
[5]Category D, 1300-3.

PALO ALTO, CA

PALO ALTO AIRPORT OF
SANTA CLARA COUNTY .... **VOR/DME Rwy 31**
NA when control tower closed.

RED BLUFF, CA

RED BLUFF MUNI ..... **RNAV (GPS) Rwy 15**
RNAV (GPS) Rwy 33
VOR Rwy 33
VOR/DME Rwy 15
NA when local weather not available.

REDDING, CA

REDDING MUNI ..... **ILS or LOC/DME Rwy 34**[13]
LOC/DME BC Rwy 16[23]
RNAV (GPS) Rwy 34[3]
VOR Rwy 34[4]
[1]ILS, Categories A, B, C, 700-2; Category E, 900-3. LOC, Category E, 900-3.
[2]NA when control tower closed.
[3]NA when local weather not available.
[4]Category C, 800-2¼; Category D, 800-2½.

SACRAMENTO, CA

SACRAMENTO
EXECUTIVE ..... **ILS or LOC Rwy 2**
RNAV (GPS) Rwy 2
VOR Rwy 2
NA when local weather not available.

SACRAMENTO INTL ..... **ILS or LOC Rwy 34L**
RNAV (GPS) Rwy 16L
RNAV (GPS) Rwy 16R
RNAV (GPS) Rwy 34L
RNAV (GPS) Rwy 34R[1]
NA when local weather not available.
[1]Category D, 800-2¼.

SACRAMENTO MATHER . **ILS or LOC Rwy 22L**
NA when control tower closed.
Category E, 800-2½.

NAME ALTERNATE MINIMUMS

SALINAS, CA

SALINAS MUNI ..... **ILS Rwy 31**[1]
LOC/DME Rwy 31[2]
RNAV (GPS) Rwy 13[2][3]
RNAV (GPS) Y Rwy 31[2][3]
RNAV (GPS) Z Rwy 31[2][3]
VOR Rwy 13[4]

[1]ILS, Category D, 700-2¼. LOC, NA.
[2]Category D, 800-2¼.
[3]NA when local weather not available.
[4]Category D, 1000-3.

SAN FRANCISCO, CA

SAN FRANCISCO INTL ..... **ILS Rwy 19L**[1]
ILS or LOC Rwy 28L[1]
ILS Rwy or LOC 28R[1]
RNAV (GPS) Z Rwy 19L[2]
RNAV (GPS) Rwy 28L[3]
RNAV (GPS) Z Rwy 28R[4]
VOR or GPS-B,1200-3
VOR Rwy 19L[5]

[1]ILS, Category A, 800-2; Category B, 1000-2; Category C, 1100-3; Category D, 1200-3. LOC, Category B, 1000-2; Category C, 1100-3; Category D, 1200-3.
[2]Categories A, B, C, D, 1200-5.
[3]Categories A, B, 1200-2; Categories C, D, 1200-3.
[4]Categories A,B, 1100-2; Category C, 1100-3; Category D, 1200-3.
[5]Category B, 1000-2; Category C, 1100-3; Category D, 1300-3.

SAN JOSE, CA

NORMAN Y MINETA SAN JOSE INTL ..... **ILS or LOC Rwy 12R**[1]
ILS or LOC/DME Rwy 30L[1]
RNAV (GPS) Y Rwy 30L[2]
VOR Rwy 12R[1]

[1]NA when control tower closed.
[2]NA when local weather not available.

SANTA ROSA, CA

CHARLES M. SCHULTZ-SONOMA COUNTY ..... **ILS or LOC Rwy 32**
ILS, Categories C,D, 700-2.
NA when control tower closed.

SOUTH LAKE TAHOE, CA

LAKE TAHOE ..... **VOR/DME or GPS-A,**2600-5

STOCKTON, CA

STOCKTON METRO ..... **ILS or LOC Rwy 29R**[1]
RNAV (GPS) Rwy 11L[2]
RNAV (GPS) Rwy 29R[2]

[1]ILS,Category D, 700-2.
[2]NA when local weather not available.

UKIAH, CA

UKIAH MUNI ..... **LOC Rwy 15**[1]
RNAV (GPS)-B[2]
VOR-A[3]

[1]Categories A, B, 1800-2; Categories C, D, 1800-3.
[2]Categories A, B, 2000-2; Categories C, D, 2000-3.
[3]Categories A, B, 2800-2; Categories C, D, 2800-3.

VACAVILLE, CA

NUT TREE ..... **RNAV (GPS) Y Rwy 20**
RNAV (GPS) Z Rwy 20
VOR/DME-A
NA when local weather not available.

VISALIA, CA

VISALIA MUNI ..... **ILS or LOC/DME Rwy 30**
RNAV (GPS) Rwy 12
RNAV (GPS) Rwy 30
NA when local weather not available.

WATSONVILLE, CA

WATSONVILLE MUNI ..... **LOC Rwy 2**
NA when local weather not available.

INSTRUMENT APPROACH PROCEDURE CHARTS

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NAME — ALTERNATE MINIMUMS

BAKERSFIELD, CA
MEADOWS FIELD . **ILS or LOC/DME Rwy 30R**
VOR/DME Rwy 30R
NA when control tower closed.
NA when local weather not available.

BLYTHE, CA
BLYTHE ..... **RNAV (GPS) Rwy 26**
VOR /DME-A
VOR/DME Rwy 26
Category D, 900-2¾.

BURBANK, CA
BOB HOPE ..... **ILS or LOC Z Rwy 8[1]**
LOC Y Rwy 8[2]
RNAV (GPS) Y Rwy 8[2]
VOR Rwy 8[3]
[1]Category D, 700-2.
[2]Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.
[3]Category D, 900-3.

CAMARILLO, CA
CAMARILLO ..... **RNAV (GPS) Rwy 8[1]**
RNAV (GPS) Y Rwy 26[1]
RNAV (GPS) Z Rwy 26[1]
VOR Rwy 26[2]
[1]NA when local weather not available.
[2]Categories A, B, 1100-2; Category C, 1100-3.

CARLSBAD, CA
MC CLELLAN-
PALOMAR ..... **ILS or LOC Rwy 24[12]**
RNAV (GPS) Rwy 24[3]
VOR-A[4]
[1]NA when control tower closed.
[2]ILS, Categories A,B,700-2; Category C, 800-2¼. LOC, Category C 800-2¼.
[3]Category D, 800-2¼.
[4]Categories A,B, 1000-2; Category C, 1000-3.

CHINO, CA
CHINO ..... **ILS or LOC Rwy 26R**
NA when control tower closed.

NAME — ALTERNATE MINIMUMS

DAGGETT, CA
BARSTOW-DAGGETT ..... **RNAV (GPS) Rwy 22**
RNAV (GPS) Rwy 26
NA when local weather not available.
Category B, 900-2; Category C, 1000-2¾; Category D, 1000-3.

EL MONTE, CA
EL MONTE ..... **NDB or GPS-C[1]**
VOR or GPS-A[1]
VOR/DME or GPS-B[2]
NA when control tower closed.
[1]Categories A,B, 1000-2.
[2]Categories A,B, 1100-2.

FULLERTON, CA
FULLERTON MUNI ..... **LOC/DME Rwy 24[1]**
VOR-A[2]
[1]NA when control tower closed.
[2]Categories A,B, 1500-2.

HAWTHORNE, CA
HAWTHORNE MUNI ..... **LOC Rwy 25**
NA when control tower closed.

LA VERNE, CA
BRACKETT FIELD ..... **ILS Rwy 26L**
LOC Rwy 26L
VOR or GPS-A[1]
NA when control tower closed.
[1]Category C, 800-2¼.

LANCASTER, CA
GENERAL WILLIAM J. FOX
AIRFIELD ..... **VOR-B[1]**
RNAV (GPS) Rwy 6[2]
[1]Categories A,B, 1000-2; Categories C,D, 1000-3.
[2]NA when local weather not available.

NAME ALTERNATE MINIMUMS

LOMPOC,CA

LOMPOC ..... **RNAV (GPS) Rwy 25[1]**
VOR/DME-A[2]

[1]NA when local weather not available.
[2]Categories A,B, 900-2.

LONG BEACH, CA

LONG BEACH(DAUGHERTY FIELD) ..... **ILS or LOC Rwy 30[12]**
RNAV (GPS) Z Rwy 30[3]
VOR or TACAN Rwy 30[14]

[1]NA when control tower closed.
[2]ILS, Categories A,B, 900-2; Category C, 900-2½; Category D, 900-2¾. LOC, Categories A,B, 900-2, Category C, 900-2½; Category D, 900-2¾.
[3]Categories A,B, 900-2¼; Category C, 900-2½; Category D, 900-2¾.
[4]Categories A,B, 900-2; Category C, 900-2½; Category D, 900-2¾.

LOS ANGELES, CA

WHITEMAN ..... **VOR-A**
Categories A,B, 900-2; Category C, 900-2½.
NA when control tower closed.

NEEDLES, CA

NEEDLES ..... **VOR-A**
Category D, 800-2½.

OCEANSIDE, CA

OCEANSIDE MUNI ..... **VOR-A**
Categories A,B, 1200-2.

ONTARIO, CA

ONTARIO INTL ..... **RNAV (GPS) Y Rwy 8L**
RNAV (GPS) Y Rwy 26L
RNAV (GPS) Y Rwy 26R
NA when local weather not available.

OXNARD, CA

ONTARIO INTL ..... **ILS Rwy 25[1]**
LOC Rwy 25[1]
RNAV (GPS) Rwy 25
NA when local weather not available.
[1]NA when control tower closed.

PALM SPRINGS, CA

JACQUELINE COCHRAN RGNL ..... **VOR-A**
NA when control tower closed.
Categories A,B, 1300-2; Categories C,D, 1300-3.

PALM SPRINGS INTL ..... **VOR or GPS-B**
Categories A,B, 1900-2; Categories C,D, 1900-3.

NAME ALTERNATE MINIMUMS

PASO ROBLES, CA

PASO ROBLES MUNI ..... **VOR or GPS-A**
Categories A,B, 1300-2; Categories C,D, 1300-3.

RAMONA, CA

RAMONA ..... **RNAV (GPS)-B[1]**
RNAV (GPS) Rwy 9[2]
VOR/DME-A[3]
NA when local weather not available.
[1]Categories A,B, 1400-2; Category C, 1400-3.
[2]Categories A, B, 900-2; Category C, 900-2½.
[3]Categories A,B 1200-2; Category C, 1200-3.

RIVERSIDE, CA

RIVERSIDE MUNI ..... **ILS or LOC Rwy 9[12]**
RNAV (GPS) Rwy 9[34]
RNAV (GPS) Rwy 27[5]
VOR-A[36]
VOR-B[37]
VOR Rwy 9[35]
[1]NA when control tower closed.
[2]ILS,LOC, Category C, 900-2¼; Category D, 900-2½.
[3]NA when local weather not available.
[4]Categories A, B, 1000-2; Categories C, D, 1000-3.
[5]Categories A, B, 1300-2; Categories C, D, 1300-3.
[6]Categories A, B, 1500-2; Categories C, D, 1500-3.
[7]Categories A, B, 1200-2; Categories C, D, 1200-3.

SAN DIEGO, CA

BROWN FIELD MUNI ... **RNAV (GPS) Rwy 8L[1]**
VOR or GPS-A,800-2¾[2]
[1]NA when local weather not available.
[2]NA when control tower closed.

MONTGOMERY FIELD ..... **ILS or LOC/DME Rwy 28R**
NA when control tower closed.

SAN DIEGO INTL ..... **ILS or LOC Rwy 9**
LOC Rwy 27
RNAV (GPS) Rwy 9
Categories A,B, 900-2; Category C, 900-2¼; Category D, 900-2½.

NAME ALTERNATE MINIMUMS

SAN DIEGO(EL CAJON), CA

GILLESPIE FIELD ..... **LOC-D[12]**
RNAV (GPS) Rwy 17[34]

[1]NA when control tower closed.
[2]Categories A, B, 2400-2; Categories C, D, 2400-3.
[3]Categories A, B, 1100-2; Category C, 1100-3; Category D, 1200-3.
[4]NA when local weather not available.

SAN LUIS OBISPO, CA

SAN LUIS COUNTY ..... **ILS Rwy 11[1]**
VOR or TACAN A[2]

[1]NA when control tower closed.
Categories A,B, 900-2; Category C, 1000-2¾; Category D, 1100-3.
[2]Categories A,B, 1500-2; Categories C,D, 1500-3.

SANTA ANA, CA

JOHN WAYNE AIRPORT-
ORANGE COUNTY ..... **ILS or LOC Rwy 19R[12]**
LDA Rwy 19R[34]
LOC BC Rwy 1L[2]
NDB Rwy 19R[4]

[1]ILS, Categories A,B,C, 800-2; Category D, 800-2¼. LOC, Category D, 800-2¼.
[2]NA when control zone not in effect.
[3]Categories A,B, 900-2; Category C, 900-2½; Category D, 900-2¾.
[4]NA when control tower closed.

SANTA BARBARA, CA

SANTA BARBARA MUNI . **ILS or LOC Rwy 7[12]**
RNAV (GPS) Rwy 7[13]
VOR or GPS Rwy 25[4]

[1]NA when local weather not available.
[2]ILS, Categories A,B, 800-2; Category C,800-2¼; Category D, 1000-3. LOC, Category C, 800-2¼; Category D, 1000-3.
[3]Category C, 800-2¼; Category D, 1000-3.
[4]Categories A,B, 1000-2; Categories C,D, 1000-3.

NAME ALTERNATE MINIMUMS

SANTA MARIA, CA

SANTA MARIA PUBLIC/CAPTAIN G. ALLEN HANCOCK FIELD ..... **ILS or LOC Rwy 12[14]**
LOC/DME BC-A[24]
RNAV (GPS) Rwy 12[3]
RNAV (GPS) Rwy 30[67]
VOR Rwy 12[35]

[1]ILS, Category C, 700-2; Category D, 1100-3. LOC, Category D, 1100-3.
[2]Category A,B, 900-2; Category C, 900-2½; Category D, 1100-3.
[3]Category D, 1100-3.
[4]NA when control tower closed.
[5]NA when control tower closed except for operators with approved weather reporting service.
[6]NA when local weather not available.
[7]Categories A, B, 1400-2; Category C, 1400-3.

SANTA MONICA, CA

SANTA MONICA MUNI ..... **VOR or GPS-A**
Category A,B, 1000-2; Category C, 1000-2¾; Category D, 1000-3.

SANTA YNEZ, CA

SANTA YNEZ ..... **VOR or GPS-B**
Categories A,B, 1300-2.
NA except for operators with approved weather reporting service.

TORRANCE, CA

ZAMPERINI FIELD ..... **ILS or LOC Rwy 29R[1]**
VOR or GPS Rwy 11L,900-2[2]

[1]NA when control tower closed.
[2]NA when control tower closed except for operators with approved weather reporting service.

VAN NUYS, CA

VAN NUYS ..... **ILS Rwy 16R[1]**
LDA-C[2]
VOR-A[34]

[1]NA when control tower closed.
[2]Categories A, B, 1900-2; Categories C,D, 1900-3.
[3]Category D, 800-2¼.
[4]NA when local weather not available.

VICTORVILLE, CA

SOUTHERN CALIFORNIA LOGISTICS ..... **ILS or LOC Rwy 17[1]**
RNAV (GPS) Rwy 17[2]
VOR/DME Rwy 17[2]

NA when local weather not available.
[1]ILS, Category D, 700-2¼; LOC, Category D, 800-2¼.
[2]Category D, 800-2¼.

LEMOORE NAS (KNLC), (REEVES FIELD), CA (Amdt 1, 08045 USN) ELEV 232

RADAR - (E) 125.95 264.5x 270.8x 301.2x 309.9x 314.0x 336.4x 344.4x 348.75x 363.7x 383.6x 383.9x

	RWY	GS/TCH/RPI	CAT	DH/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
PAR[1]	32L[2]	3.0°/40/758	ABCDE	**330**/16	100	(100-¼)
	14L	3.0°/54/1015	ABCDE	**322**-½	100	(100-½)
	32R	3.0°/45/853	ABCDE	**325**/24	100	(100-½)
	14R	3.0°/51/984	ABCDE	**331**-½	100	(100-½)
PAR W/O GS	14L		ABCDE	**500**-1¼	278	(300-1¼)
	14R		ABCDE	**520**-1¼	289	(300-1¼)
	32L[3]		ABCDE	**540**/40	310	(400-¾)
	32R		ABCDE	**540**/60	315	(400-1¼)
ASR	32L[4]		AB	**540**/24	310	(400-½)
			CDE	**540**/40	310	(400-¾)
	14L		ABCDE	**520**-1	298	(300-1)
	14R		ABCDE	**520**-1	289	(300-1)
	32R		ABC	**620**/50	395	(400-1)
			DE	**620**/60	395	(400-1¼)
CIR	All Rwys[5]		A	**680**-1	448	(500-1)
			B	**700**-1	468	(500-1)
			C	**700**-1½	468	(500-1½)
			DE	**800**-2	568	(600-2)

[1]No-NOTAM MP: PAR-Rwy 14R-32L 1600-2400Z++ Mon, Rwy 14L-32R 1600-2400Z++ Wed. [2]When ALS inop, increase CAT ABCDE RVR to 24 and vis to ½ mile. [3]When ALS inop, increase CAT ABCDE RVR to 60 and vis to 1¼ miles. [4]When ALS inop, increase CAT ABCDE RVR to 50 and vis to 1 mile. [5]CIR from PAR W/O GS Rwy 14L, 14R and 32R, increase vis CAT AB to 1¼ miles.

CAMP PENDLETON MCAS (MUNN FLD)(KNFG), CA (Oceanside)

(07158 USN) ELEV **78**

RADAR - (E) 281.7 338.1 NA

	RWY	GS/TCH/RPI	CAT	DH/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
PAR	21[125]	3.5°/49/843	ABCD	**438**-¾	360	(400-¾)
W/O GS	21[56]		ABC	**520**-1	442	(500-1)
			D	**520**-1¼	442	(500-1¼)
ASR	21[3]		A	**900**-¾	822	(900-¾)
			B	**900**-1	822	(900-1)
			C	**900**-2¼	822	(900-2¼)
			D	**900**-2½	822	(900-2½)
CIR	All Rwy[4]		A	**960**-1¼	882	(900-1¼)
			B	**1080**-1½	1002	(1100-1½)
			C	**1180**-3	1102	(1200-3)
			D	**1200**-3	1122	(1200-3)

[1]CAUTION: Trees penetrate obstacle surfaces within the visual portion of the procedure approximately 900' from threshold. Pilots must have trees in sight prior to descending from decision height. [2]When ALS inop, increase vis CAT ABCD to 1 mile. [3]When ALS inop, increase vis CAT A to 1 mile, CAT B to 1¼ miles, CAT C to 2½ miles and CAT D to 2¾ miles. [4]Circling auth fr ASR and PAR W/O GS only. Circling Rwy 3 not auth at night. [5]No-NOTAM prevent main sked: PAR 2100-0100Z++Mon. [6]When ALS inop, increase vis CAT ABC to 1¼ miles, CAT D to 1½ miles.

LOS ALAMITOS AAF (KSLI), CA (1-Amdt 5, 2-Amdt 2, 3-Orig 08101 USA) ELEV **32**

RADAR[12] **- (E)** 124.75 127.95 279.5 285.55 290.9 NA

	RWY	GS/TCH/RPI	CAT	DH/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
RADAR 1						
PAR	22L[3]	3.0°/40/745	ABCD	**282**-¾	250	(300-¾)
PAR W/O GS	22L[45]		ABC	**420**-¾	388	(400-¾)
			D	**420**-1	388	(400-1)
RADAR 2						
PAR	22L	4.0°/40/572	COPTER	**235**-¼	200	(200-¼)
RADAR 3						
ASR	22L[45]		AB	**440**-¾	408	(500-¾)
			CD	**440**-1	408	(500-1)
CIR	22L[4]		A	**440**-1	408	(500-1)
			B	**500**-1	468	(500-1)
			C	**500**-1½	468	(500-1½)
			D	**600**-2	568	(600-2)

[1]PAR opr 1600-0000Z++ Mon, 1500-0600Z++ Tue-Thu, 2200-0600Z++ Fri. [2]Multiple PAR apch avbl during VFR ctc twr for freq assn. [3]When ALS inop, increase CAT CD vis to 1 mile. [4]Circling NA N of Rwy 4L-22R. [5]When ALS inop, increase vis all CATs ¼ mile.

MIRAMAR MCAS (MITSCHER FLD) (KNKX), CA (09351 USN) ELEV 477

RADAR[1] **- (E)** 133.625 266.8x 270.35 307.9x 328.4x 348.75 350.275 373.575 379.125 380.3x

	RWY	GS/TCH/RPI	CAT	DH/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
PAR	24R[2]	3.0°/53/1133	ABCDE	**575**-¼	100	(100-¼)
	24L	3.0°/46/1032	ABCDE	**577**-½	100	(100-½)
PAR w/o GS[5]						
	24R[3]		AB	**820**-½	345	(400-½)
			CDE	**820**-¾	345	(400-¾)
	24L		ABC	**820**-1	343	(400-1)
			DE	**820**-1¼	343	(400-1¼)
ASR	24R[4]		AB	**880**-½	405	(500-½)
			CD	**880**-¾	405	(500-¾)
			E	**880**-1	405	(500-1)
	6L		ABC	**800**-1	368	(400-1)
			DE	**800**-1¼	368	(400-1¼)
	24L		AB	**880**-1	403	(500-1)
			CD	**880**-1¼	403	(500-1¼)
			E	**880**-1½	403	(500-1½)
CIR[6]	All Rwy		A	**920**-1	443	(500-1)
			B	**940**-1	463	(500-1)
			C	**940**-1½	463	(500-1½)
			D	**1160**-2¼	683	(700-2¼)
			E	**1360**-3	883	(900-3)

[1]Other APP CON freq as asgn.
[2]When ALS inop, increase vis CAT ABCDE to ½ mile.
[3]When ALS inop, increase vis CAT ABC to 1 mile, CAT DE to 1¼ miles.
[4]When ALS inop, increase vis CAT AB to 1 mile, CAT CD to 1¼ miles, CAT E to 1½ miles.
[5]No NOTAM MP: PAR 1700-2200Z++ Tue.
[6]Circling not authorized to Rwy 10-28. CAT E circling not authorized S of Rwy 6R-24L.

NORTH ISLAND NAS (KNZY), (HALSEY FIELD), CA (San Diego) (09127USN) ELEV 26

RADAR - (E) 127.7x 133.175x 319.9x 350.8x 353.5x 382.0x 385.5x

	RWY	GS/TCH/RPI	CAT	DH/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
PAR[1]	29[3]	3.0°/36/730	ABCDE	276-¾	250	(300-¾)
	36[6]	3.0°/46/850	ABCDE	119-¼	100	(100-¼)
(OFFSET)	29[8]	3.0°/36/730	ABCDE	620-2	594	(600-2)
PAR W/O GS[1]	29[24]		AB	460-½	434	(500-½)
			CD	460-¾	434	(500-¾)
			E	460-1	434	(500-1)
PAR W/O GS[1]	36		ABC	380-1	361	(400-1)
			DE	380-1¼	361	(400-1¼)
PAR W/O GS[1] (OFFSET)	29[2]		ABCDE	620-2	594	(600-2)
ASR	29[25]		AB	540-½	514	(600-½)
			C	540-1	514	(600-1)
			DE	540-1¼	514	(600-1¼)
	36[7]		A	800-¾	781	(800-¾)
			B	800-1	781	(800-1)
			C	800-2	781	(800-2)
			D	800-2¼	781	(800-2¼)
			E	800-2½	781	(800-2½)
(OFFSET)	29[2]		ABCDE	620-2	594	(600-2)
CIR	29[2]		AB	620-2	594	(600-2)
			CDE	NOT AUTHORIZED		
	36		ABCDE	NOT AUTHORIZED		

[1]No-NOTAM MP sked 2000-2400Z++ Mon. [2]Cir auth to Rwy 18 only. Cir not auth W Rwy 18-36. [3]When ALS inop, increase vis CAT ABCDE to 1 mile. [4]When ALS inop, increase vis CAT ABC to 1¼ mile, CAT DE to 1½ mile. [5]When ALS inop, increase vis CAT AB to 1 mile, CAT C to 1½ miles, CAT DE to 1¾ miles. [6]When ALS inop, increase vis CAT ABCDE to ½ mile. [7]When ALS inop, increase vis CAT A to 1 mile, CAT B to 1¼ mile, CAT C to 2¼ mile, CAT D to 2½ mile, CAT E 2¾ mile. [8]Minima applicable for rotorcraft short offset approaches.

POINT MUGU NAS (NAVAL BASE VENTURA CO) (KNTD), CA

(Oxnard) (09267 USN) ELEV **12**

RADAR[7] **- (E)** 123.75x 133.25 233.7x 269.225 350.25 353.925 ▽T

	RWY	GS/TCH/RPI	CAT	DH/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
PAR	3[2]	3.0°/47/901	ABCDE	**111**-¼	100	(100-¼)
	21	3.0°/47/891	ABCDE	**113**-½	100	(100-½)
PAR	21(altn MAP)[4]	3.0°/47/891	ABCDE	**650**-1¾	637	(700-1¾)
PAR W/O GS	3[5]		ABCDE	**300**-1	289	(300-1)
	21[5]		ABCDE	**360**-¾	347	(400-¾)
	21(altn MAP)[4]		ABCDE	**440**-1¾	427	(500-1¾)
ASR	3[3]		ABC	**380**-¾	369	(400-¾)
			DE	**380**-1	369	(400-1)
	21[3]		AB	**380**-½	367	(400-½)
			CDE	**380**-¾	367	(400-¾)
ASR	21(altn MAP)[6]		ABCDE	**440**-1½	427	(500-1½)
CIR[1]	3,21		A	**420**-1	407	(500-1)
			B	**480**-1	467	(500-1)
			C	**480**-1½	467	(500-1½)
			D	**580**-2	567	(600-2)
			E	NOT AUTHORIZED		

ATC Missed apch climb rate to 1500

	Knots	60	120	180	240	300	360
PAR 3	FPM	330	660	990	1320	1650	1980

Expanded RADAR svc-All flt conducted under positive ctl. Inbd acft not opr under ATC or PLEAD ctc APP CON 25 NM out on 307.275 or 128.65.

[1]Circling not authorized E of Rwy 3-21,with PAR approach, or when Alternate MAP Rwy 21 in use. [2]When ALS inop, increase vis CAT ABCDE to ½ mile. [3]When ALS inop, increase vis CAT ABC to 1 mile, CAT DE to 1¼ miles. [4]When ALS inop, increase vis CAT ABCDE to 2¼ miles. [5]When ALS inop, increase vis CAT ABCDE to 1¼ miles. [6]When ALS inop, increase vis CAT ABCDE to 2 miles. [7]No-NOTAM preventive maint 1400-1800Z++ Mon.

SAN CLEMENTE ISLAND NALF (KNUC), (FREDERICK SHERMAN FIELD), CA

RADAR - (E) 127.05x 305.3x ▽T (09071 USN) ELEV **184**

	RWY	GS/TCH/RPI	CAT	DH/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
PAR[1]	23	3.0°/40/939	ABCDE	**434**-1	250	(300-1)
PAR[1]	W/O GS 23		ABCDE	**520**-1¼	336	(400-1¼)
ASR[2]	23		AB	**780**-1	596	(600-1)
			C	**780**-1½	596	(600-1½)
			D	**780**-1¾	596	(600-1¾)
			E	**780**-2	596	(600-2)
CIR[3]	W/O GS All Rwy		A	**540**-1¼	356	(400-1¼)
			B	**640**-1¼	456	(500-1¼)
			C	**640**-1½	456	(500-1½)
			DE	**740**-2	556	(600-2)
CIR[3]	All Rwy		AB	**780**-1	596	(600-1)
			C	**780**-1½	596	(600-1½)
			DE	**780**-2	596	(600-2)

[1]No-NOTAM MP PAR 1800-2000Z++ Tue. [2]No-NOTAM MP ASR 2000-2200Z++ Tue.
[3]Circling not authorized S of Rwy 5-23

INSTRUCTION APPROACH PROCEDURE CHARTS

IFR TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude , and/or airports that have civil IFR take-off minimums other than standard, are listed below. Take-off Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or a separate Departure Procedure volume (military), as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not assigned a SID or radar vector by ATC, an ODP may be flown without ATC clearance to ensure obstacle clearance.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard take-off rules and establishes take-off minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) take-off minima are published below. For military take-off minima, refer to appropriate service directives.

NAME TAKE-OFF MINIMUMS

ALTURAS, CA

ALTURAS MUNI (AAT)

AMDT 2 08101 (FAA)

DEPARTURE PROCEDURE: Use BACHS DEPARTURE.

AMEDEE AAF (KAHC),

HERLONG, CA. . . . . AMDT 1, 09239

Rwy 8, 26: 4000-3 for climb in visual conditions.

Rwy 8, 26: Cross Amedee AAF at or above 7900 before proceeding on course.

NAME TAKE-OFF MINIMUMS

ARCATA-EUREKA, CA

ARCATA

TAKE-OFF MINIMUMS: **Rwy 1,** std. w/ a min. climb of 429' per NM to 1900. **Rwy 14,** 600-2¼ or std. w/ a min. climb of 486' per NM to 1000'.

DEPARTURE PROCEDURE: **Rwy 1,** climbing left turn thence..., or for climb in visual conditions: cross Arcata Airport westbound at or above 1100, thence...**Rwys 14, 19,** climbing right turn thence...**Rwy 32,** climbing left turn thence...

...via ACV R-250 to HOCUT INT and continue climb to MEA on V27.

NOTE: **Rwy 1,** multiple trees beginning 182' from departure end of runway, 11' right of centerline, up to 161' AGL/370' MSL. Multiple tees beginning 281' from departure end of runway, 86' left of centerline, up to 148' AGL/357' MSL. **Rwy 14,** multiple trees beginning 838' from departure end of runway, 372' left of centerline, up to 200' AGL/759' MSL. Multiple trees beginning 1286' from departure end of runway, 716' right of centerline, up to 65' AGL/286' MSL. **Rwy 19,** multiple trees beginning 57' from departure end of runway, 270' right of centerline, up to 30' AGL/218' MSL. **Rwy 32,** multiple trees beginning 113' from departure end of runway, 211' right of centerline, up to 86' AGL/267' MSL. Multiple trees 1' from departure end of runway, 161' left of centerline, up to 21' AGL/202' MSL. Obstruction light 426' from departure end of runway, 257' right of centerline, 21' AGL/202' MSL.

AUBURN, CA

AUBURN MUNI

TAKE-OFF MINIMUMS: **Rwy 7,** CAT A,B 600-2 or std. with a min. climb of 350' per NM to 2300. CAT C,D NA. **Rwy 25,** CAT A,B 300-1 or std. with a min. climb of 390' per NM to 1700. CAT C,D NA.

DEPARTURE PROCEDURE: **Rwy 7,** climbing left turn to 3000 heading 305°, intercept MYV R-089 to MYV VOR/DME, then via assigned routing. **Rwy 25,** climb runway heading to 3000, intercept and proceed via MYV R-098 to MYV VOR/DME, then via assigned heading.

BEALE AFB (KBAB)

MARYSVILLE, CA. . . . . ORIG, 09155

DEPARTURE PROCEDURE: **Rwy 15,** Climb on a heading between 100° CW to 325° from DER. **Rwy 33,** Climb on a heading between 146° CW to 344° from DER.

TAKE-OFF OBSTACLES: **Rwy 33,** Terrain 118' MSL, 62' from DER, 500' right of centerline. Terrain 119' MSL, 190' from DER, 551' right of centerline.

BECKWOURTH, CA

NERVINO

TAKE-OFF MINIMUMS: **Rwys 7, 25,** 3500-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 7, 25,** for climb in visual conditions: cross Nervino Airport at or above 8300 before proceeding on course.

NOTE: **Rwy 7,** road 58' from departure end of runway, 469' right of centerline, 15' AGL/4920' MSL. Pole 310' from departure end of runway, 522' right of centerline, 49' AGL/4925' MSL. Pole 528' from departure end of runway, 522' right of centerline, 39' AGL/4924' MSL. Tree 1.47 NM from departure end of runway, 727' right of centerline, 100' AGL/5193' MSL. Tree 1.9 NM from departure end of runway, 2534' right of centerline, 100' AGL/5499' MSL. Bush 2.03 NM from departure end of runway, 2126' right of centerline, 4' AGL/5406' MSL. **Rwy 25,** tree 5856' from departure end of runway, 1984' right of centerline, 100' AGL/5339' MSL. Tree 1.25 NM from departure end of runway, 2439' right of centerline, 100' AGL/5420' MSL. Tree 2.07 NM from departure end of runway, 3302' left of centerline, 100' AGL/5570' MSL.

BISHOP, CA

EASTERN SIERRA RGNL

TAKE-OFF MINIMUMS: **Rwys 7,12,16,** NA. **Rwys 25, 30,34,** 4000-2 or std. with a min. climb of 350' per NM to 9000.

DEPARTURE PROCEDURE: **Rwys 25,30,** turn right. **Rwy 34,** turn left, climb northwestbound to 13000 via BIH R-322 to NIKOL Int.

BYRON, CA

BYRON

TAKE-OFF MINIMUMS: **Rwy 23,** NA-obstacles. **Rwy 30,** 200-1 or std. with a min. climb of 240' per NM to 300. Alternatively, with standard take-off minimums and a normal 200'/NM climb gradient, take-off must occur no later than 2000' prior to departure end of runway.

DEPARTURE PROCEDURE: **Rwy 5,** climbing right turn via heading 120° and ECA VORTAC before proceedingon course. **Rwy 12,** climbing left turn via heading 050° and ECA VORTAC R-250 to ECA VORTAC before proceeding on course. **Rwy 30,** climbing right turn via heading 130° and ECA VORTAC R-250 to ECA VORTAC before proceeding on course.

NOTE: **Rwy 5,** bush 17' from departure end of runway, 67' right of centerline, 6' AGL/52' MSL. **Rwy 12,** multiple trees and bush beginning 240' from departure end of runway, 286' right of centerline, up to 39' AGL/76' MSL. **Rwy 30,** multiple poles, building, and terrain beginning 66' from departure end of runway, 228' left of centerline, up to 65' AGL/225' MSL. Multiple poles beginning 949' from departure end of runway, 28' right of centerline, up to 42' AGL/103' MSL.

CHICO, CA

CHICO MUNI

DEPARTURE PROCEDURE: **Rwys 13L/R,** climbing right turn. **Rwys 31L/R,** climbing left turn. **All aircraft,** climb via CIC R-205 to JINGO Int. Aircraft departing JINGO Int 020° CW 350° climb on course. All others climb in JINGO Int holding pattern (SE, right turns,320° inbound) to depart JINGO Int at or above 2800.

CLOVERDALE, CA

CLOVERDALE MUNI

TAKE-OFF MINIMUMS: **Rwy 14,** 400-2 or std. with a min. climb of 280' per NM to 1500, then a min. climb of 260' per NM to 3900. **Rwy 32,** NA.

DEPARTURE PROCEDURE: **Rwy 14,** climb direct STS VOR/DME. Continue climb in holding pattern (NW right turns, 140° inbound) to MEA for route of flight.

NOTE: **Rwy 14,** tree 9337' from departure end of runway, 4633' right of centerline, 150' AGL/889' MSL.

COLUMBIA, CA

COLUMBIA

TAKE-OFF MINIMUMS: **Rwy 17,** 300-1 with a min. climb rate of 300' per NM to 3000. **Rwy 35,** NA.

DEPARTURE PROCEDURE: **Rwy 17,** use FICHU RNAV DEPARURE. **Rwy 35,** NA.

NOTE: **Rwy 17,** 51' AGL pole 502' from departure end of runway, 368' right of centerline, 90' AGL tree 483' from departure end of runway, 535' right of centerline; 100 AGL tree 1258' from departure end of runway, 494' left of centerline;167' AGL tree 1644' from departure end of runway, 924' right of centerline.

COLUSA, CA

COLUSA COUNTY

DEPARTURE PROCEDURE: Climb direct to ILA VORTAC.

CONCORD, CA

BUCHANAN FIELD (CCR)

AMDT 2 07354 (FAA)

TAKE-OFF MINIMUMS: **Rwys 1L/R,** std. w/ min. climb of 360' per NM to 1100, or 2200-3 for climb in visual conditions. **Rwys 14L/R,** std. w/ min. climb of 420' per NM to 2700, or 2200-3 for climb in visual conditions. **Rwys 19L/R,** std. w/ min. climb of 490' per NM to 4000, or 2200-3 for climb in visual conditions. **Rwys 32L/R,** std. w/ min. climb of 320' per NM to 500, or 2200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 1L/R,** climb direct CCR VOR/DME, or climb in visual conditions to cross Buchanan Airport northbound at or above 2100 via CCR R-173 to CCR VOR/DME, thence...**Rwys 14L/R, 19L/R** climbing left turn direct CCR VOR/DME, or climb in visual conditions to cross Buchanan Airport northbound at or above 2100 via CCR R-173 to CCR VOR/DME, thence...**Rwys 32L/R,** climbing right turn direct CCR VOR/DME, or climb in visual conditions to cross Buchanan Airport northbound at or above 2100 via CCR R-173 to CCR VOR/DME, thence...

...aircraft departing CCR VOR/DME R-150 clockwise R-110 climb on course. All others climb in CCR VOR/DME holding pattern (north, left turns, 191° inbound) to cross CCR VOR/DME at or above 2700 before proceeding on course.

NOTE: **Rwy 1L,** multiple trees and bushes beginning 675' from departure end of runway, 9' left of centerline, up to 48' AGL/98' MSL. Multiple poles, light poles and antennas on buildings beginning 639' from departure end of runway, 120' left of centerline, up to 50' AGL/72' MSL. Fence 117' from departure end of runway, 2' right of centerline, 12' AGL/29' MSL. Sign 1996' from departure end of runway, 812' left of centerline, 45' AGL/78' MSL. Flagpole 1520' from departure end of runway, 753' left of centerline, 40' AGL/71' MSL. **Rwy 1R,** multiple trees and poles beginning 1552' from departure end of runway, 98' right of centerline, up to 52' AGL/131' MSL. **Rwy 19R,** multiple trees beginning 604' from departure end of runway, 82' left of centerline, up to 70' AGL/108' MSL. Light pole 1392' from departure end of runway, 749' right of centerline, 51' AGL/71' MSL. Obstruction light on building 2451' from departure end of runway, 911' left of centerline, 73' AGL/97' MSL. Fence 123' from deparure end of runway, 503' left of centerline, 6' AGL/30' MSL. **Rwy 19L,** multiple trees beginning 2132' from departure end of runway, 28' left of centerline, up to 70' AGL/106' MSL. **Rwy 32L,** road/vehicle 561' from departure end of runway, on centerline, 15' AGL/49' MSL. Light on tank 6617' from departure end of runway, 1926' right of centerline, 114' AGL/213' MSL. Hangar 259' from departure end of runway, 300' left of centerline, 21' AGL/37' MSL. Transmission tower 6015' from departure end of runway, 1338' left of centerline, 145' AGL/173' MSL. Tree 825' from departure end of runway, 136' left of centerline, 25' AGL/40' MSL, building 633' from departure end of runway, 254' right of centerline, 20' AGL/35' MSL.

BUCHANAN FIELD (CON'T)

Rwy 32R, train 6345' from departure end of runway, 1948' left of centerline, 23' AGL/102' MSL, obstruction light on hopper 2110' from departure end of runway, 601' right of centerline, 79' AGL/99' MSL. Obstacle light on tank 6617' from departure end of runway, 1426' right of centerline, 193' AGL/213' MSL. Flagpole 655' from departure end of runway, 300' right of centerline, 35' AGL/43' MSL. Sign 697' from departure end of runway, 248' right of centerline, 25' AGL/41' MSL. Road/vehicle 561' from departure end of runway, on centerline, 15' AGL/49' MSL. Building 633' from departure end of runway, 246' left of centerline, 20' AGL/35' MSL, tree 825' from departure end of runway, 635' left of centerline, 25' AGL/40' MSL, transmission tower 6015' from departure end of runway, 1839' left of centerline, 145' AGL/173' MSL. **Rwy 14R,** obstacle lights, obstacle lights on buildings, obstacle lights on windsocks, buildings and trees beginning 412' from departure end of runway, 167' right of centerline, up to 104' AGL/136' MSL. **Rwy 14L,** multiple trees beginning 841' from departure end of runway, 61' left of centerline, up to 78' AGL/102' MSL, building 1071' from departure end of runway, 35' left of centerline, 30' AGL/58' MSL. Fence 225' from departure end of runway, 29' left of centerline, 12' AGL/33' MSL.

CRESCENT CITY, CA

JACK MCNAMARA FIELD

TAKE-OFF MINIMUMS: **Rwy 11,** 300-1. **Rwy 17,** 300-1 or std. with a min. climb of 240' per NM to 300.

DEPARTURE PROCEDURE: **Rwys 11,17,** climbing right turn. **Rwys 29,35,** climbing left turn. **All aircraft,** climb direct CEC VORTAC. Aircraft departing CEC R-131 CW R-330 climb on course. All others continue climb in CEC holding pattern (S, left turns, 341° inbound) to cross CEC VORTAC at or above: R-331 CW R-010, 1100; R-011 CW R-050, 2200; R-051 CW R-090, 4100; R-091 CW R-130, 2700.

DAVIS, CA

UNIVERSITY (EDU)

AMDT 3 09127 (FAA)

DEPARTURE PROCEDURE: **Rwy 17,** climbing right turn via heading 200° and ILA R-151 to EMBER INT/ILA 48 DME before proceeding on course. **Rwy 35,** climbing left turn via heading 320° and ILA R-145 to ILA VORTAC before proceeding on course.

NOTE: **Rwy 17,** trees beginning 1353' from DER, 31' right of centerline, up to 40' AGL/109' MSL. **Rwy 35,** tree 24' from DER, 433' left of centerline, 40' AGL/104' MSL. Vehicle 288' from DER, on centerline, 15' AGL/74' MSL.

DAVIS/WOODLAND/WINTERS, CA

YOLO COUNTY (DWA)

AMDT 1 09127 (FAA)

DEPARTURE PROCEDURE: **Rwy 16,** climb heading 164° to 2100 before turning right. **Rwy 34,** climb heading 344° to 1500 before turning left.

NOTE: **Rwy 16,** multiple trees beginning 595' from DER, 308' right of centerline, up to 120' AGL/206' MSL. Multiple trees beginning 1046' from DER, 257' left of centerline, up to 120' AGL/195' MSL. **Rwy 34,** multiple trees beginning 417' from DER, 361' right of centerline, up to 120' AGL/206' MSL. Trees beginning 683' from DER, 491' left of centerline, up to 120' AGL/206' MSL. Pole 859' from DER, 548' left of centerline, 47' AGL/137' MSL.

EUREKA, CA

MURRAY FIELD (EKA)

AMDT 4 09239 (FAA)

TAKE-OFF MINIMUMS: **Rwy 12,** std. w/ min. climb of 465' per NM to 1800 or 3800-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 12** climbing right turn heading 265° to intercept V27. For climb in visual conditions: cross Eureka airport at or above 3700 before proceeding on course. **Rwy 30,** climbing left turn heading 265° to intercept V27.

NOTE: **Rwy 12,** bush 50' from DER, 82' left of centerline, 6' AGL/16' MSL. Multiple trees beginning 1.5 NM from DER, 2993' left of centerline. Multiple trees beginning 1.6 NM from DER, 2318' right of centerline. **Rwy 30,** multiple trees, beginning 443' from DER, 389' right of centerline, up to 93' AGL/103' MSL. Tree 664' from DER, 587' left of centerline, 46' AGL/56' MSL. Pole 753' from DER, 155' right of centerline 27' AGL/ 37' MSL. Railroad 786' from DER, 4' left of centerline 23' AGL/31' MSL. Road beginning 602' from DER, 4' left of centerline up to 15' AGL/23' MSL. Bush 566' from DER, 69' left of centerline, 8' AGL/18' MSL.

FIREBAUGH, CA

FIREBAUGH

DEPARTURE PROCEDURE: **Rwy 12,** climbing right turn. **Rwy 30,** climbing left turn. **All aircraft** climb via heading 150° and PXN R-061 to MENDO Int. Aircraft departing MENDO Int, heading 230° CW 150° climb on course. All others climb in MENDO holding pattern (NE, right turns, 241° inbound) to cross MENDO Int at or above 2000.

FORTUNA, CA

ROHNERVILLE

TAKE-OFF MINIMUMS: **Rwy 11,** NA.

DEPARTURE PROCEDURE: Climb direct FOT VORTAC. Continue climb in holding pattern (N, right turns, 161° inbound) to cross FOT VORTAC at or above 3000.

FRESNO, CA

FRESNO-CHANDLER EXECUTIVE (FCH)

AMDT 2 09015 (FAA)

DEPARTURE PROCEDURE: **Rwy 12,** climb heading 111° to 2000 then climbing right turn to 6300 via heading 200° and CZQ VORTAC R-167 before proceeding on course. **Rwy 30,** climb heading 291° to 2000 then climbing left turn to 5500 via heading 140° and CZQ VORTAC R-167 before proceeding on course.

NOTE: **Rwy 12,** multiple trees, poles, and terrain beginning 84' from departure end of runway, 16' left of centerline, up to 92' AGL/371' MSL. Multiple trees, poles, road, fence and terrain beginning 53' from departure end of runway, 94' right of centerline, up to 62' AGL/341' MSL. **Rwy 30,** multiple trees, poles, bushes and terrain beginning 125' from departure end of runway, 46' left of centerline, up to 111' AGL/389' MSL. Multiple poles, road, and fence beginning 236' from departure end of runway, 23' right of centerline, up to 42' AGL/320' MSL.

FRESNO YOSEMITE INTL

DEPARTURE PROCEDURE: **Rwys 11L, 11R** ,climbing left turn direct CZQ VORTAC. **Rwys 29L, 29R,** climbing right turn direct CZQ VORTAC. All aircraft climb in CZQ VORTAC holding pattern (SE, left turns, 322° inbound) to cross CZQ VORTAC at or above MEA/MCA for direction of flight before proceeding en route.

NOTE: **Rwy 11L,** pole 647' from departure end of runway, 543' left of centerline, 17' AGL/349' MSL. Sign 1693' from departure end of runway, 863' right of centerline, 53' AGL/383' MSL. **Rwy 11R,** transmisometer 432' from departure end of runway, 281' left of centerline, 19' AGL/349' MSL. Light, 1701' from departure end of runway, 293' right of centerline, 53' AGL/386' MSL. **Rwy 29L,** arresting sys, 124' from departure end of runway, 527' right of centerline, 2' AGL/334' MSL. Building 219' from departure end of runway, 296' left of centerline, 7' AGL, 336' MSL. **Rwy 29R,** trees 1076' from departure end of runway, 775' right of centerline, 63' AGL/397' MSL. Arresting sys, 95' from departure end of runway, 149' right of centerline, 3' AGL/336' MSL. Multiple trees beginning 1076' from departure end of runway, 775' right of centerline, up to 75' AGL/397' MSL.

GRASS VALLEY, CA

NEVADA COUNTY AIR PARK

TAKE-OFF MINIMUMS: **Rwy 7,** NA.

DEPARTURE PROCEDURE: **Rwy 25,** climb via MYV R-058 to 6000 then continue climb on course.

GROVELAND, CA

PINE MOUNTAIN LAKE

TAKE-OFF MINIMUMS: **Rwy 9,** 400-2 or std. with a min. climb of 400' per NM to 4000.

DEPARTURE PROCEDURE: **Rwy 9,** turn right. **Rwy 27,** turn left. **All aircraft** climb direct LIN VORTAC. Cross LIN VORTAC at or above 5000.

HALF MOON BAY, CA

HALF MOON BAY

TAKE-OFF MINIMUMS: **Rwy 12,** 2600-2 or std. with a min. climb of 300' per NM to 3000. **Rwy 30,** NA.

DEPARTURE PROCEDURE: **Rwy 12,** climb runway heading to 3000, then climb direct OSI VORTAC, to cross OSI VORTAC at or above 3500 before proceeding on course.

HANFORD, CA

HANFORD MUNI

DEPARTURE PROCEDURE: **Rwy 14,** climbing left turn heading 050° to intercept V-23. **Rwy 32,** climbing right turn heading 050° to intercept V-23.

HAYWARD, CA

HAYWARD EXECUTIVE

TAKE-OFF MINIMUMS: **Rwys 10L,10R,** 300-1.

DEPARTURE PROCEDURE: **Rwys 28L,28R,** climb straight ahead. **Rwys 10L,10R,** turn right, climb to 2500 via direct OAK VORTAC and OAK R-288. Aircraft southeastbound and capable of climbing 250' per NM to 4500 may proceed direct to MABRY Int via OAK R-114.

HOLLISTER, CA

HOLLISTER MUNI (CVH)

AMDT 1 08157 (FAA)

TAKE-OFF MINIMUMS: **Rwy 6,** NA-obstacles. **Rwy 24,** NA-ATC. **Rwy 13,** std. w/ min. climb of 391' per NM to 3500, or 3100-3 for climb in visual conditions. **Rwy 31,** std. w/ min climb of 209' per NM to 2300, or 3100-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 13,** climbing right turn to heading 332° and via SJC R-121 direct SJC VOR/DME to 6000 before proceeding on course or for climb in visual conditions: cross Hollister Muni Airport at or above 3100 MSL before proceeding on course. **Rwy 31,** climb heading 307° and via SJC R-121 direct SJC VOR/DME to 6000 before proceeding on course or for climb in visual conditions: cross Hollister Muni Airport at or above 3100 MSL before proceeding on course.

NOTE: **Rwy 13,** terrain beginning 992' from departure end of runway, 348' left of centerline, up to 289' MSL. Terrain beginning 2467' from departure end of runway, 154' right of centerline, up to 309' MSL, trees beginning 1277' from departure end of runway, 348' left of centerline, up to 309' MSL, trees beginning 2467' from departure end of runway, 153' right of centerline, up to 270' MSL. **Rwy 31,** terrain beginning 76' from departure end of runway, 392' left of centerline, up to 247' MSL. Terrain beginning 14' from departure end of runway, 179' right of centerline, up to 231' MSL.

JACKSON, CA

WESTOVER FIELD AMADOR COUNTY

DEPARTURE PROCEDURE: **Rwy 1,** turn left. **Rwy 19,** turn right. **All aircraft** climb direct LIN VORTAC, continue climb on course.

LAKEPORT, CA

LAMPSON FIELD

TAKE-OFF MINIMUMS: **Rwy 10,** 1700-3 or std. with a min. climb of 610' per NM to 3200. **Rwy 28,** 1500-3 or std. with a min. climb of 620' per NM to 2200.

DEPARTURE PROCEDURE: **Rwy 10,** climbing left turn to heading 275°. **Rwy 28,** climbing right turn to heading 035°. Intercept and climb northwestbound via the LOP NDB 336° bearing to 4000, then climbing left turn direct ENI VORTAC. Cross ENI VORTAC at or above 6000.

LEMOORE NAS (REEVES FIELD) (KNLC)

LEMOORE, CA 07270

Rwy 14L, Cross DER at or above 15' AGL/235' MSL.
Rwy 14R, Cross DER at or above 15' AGL/245' MSL.
Rwy 32L, Cross DER at or above 15' AGL/ 234' MSL, Departure headings 142° CW 283°, minimum military climb 220 ft/NM to 6400, minimum civil climb 220 ft/NM to 6600.
Rwy 32R, Cross DER at or above 15' AGL/239' MSL, Departure headings 142° CW 281° minimum military climb 220 ft/NM to 6400, minimum civil climb 220 ft/NM to 6600.

LINCOLN, CA

LINCOLN RGNL/KARL HARDER FIELD

DEPARTURE PROCEDURE: **Rwy 15,** climbing right turn. **Rwy 33,** climbing left turn. **All aircraft** climb direct MYV VOR/DME, then climb on course.

LIVERMORE, CA

LIVERMORE MUNI

TAKE-OFF MINIMUMS: **Rwys 7L, 7R,** 1500-2 or std. with a min. climb of 260' per NM to 2200. **Rwys 25L, 25R,** 2300-2 or std. with a min. climb of 375' per NM to 3100.

DEPARTURE PROCEDURE: **Rwys 7L, 7R,** climb direct REIGA LOM, then climbing left turn via the 030° bearing from REIGA LOM to intercept V109, then proceed on course. **Rwys 25L, 25R,** climb runway heading to 1200, then climbing right turn via heading 020° and OAK R-060 to ALTAM Int, then proceed on course.

LODI, CA

LODI

DEPARTURE PROCEDURE: Climb direct to LIN VORTAC.

LOS BANOS, CA

LOS BANOS MUNI (LSN)

AMDT 2 09351 (FAA)

DEPARTURE PROCEDURE: **Rwy 14,** climb on a heading between 318° CW to 151° from DER, or minimum climb of 320' per NM to 5100 for all other courses. **Rwy 32,** climb on a heading between 260° CW to 137° from DER, or minimum climb of 273' per NM to 5200 for all other courses.

NOTE: **Rwy 14,** multiple trees, poles, buildings beginning 3' from DER, 24' left of centerline, up to 73' AGL/194' MSL. Multiple trees, poles, buildings beginning 20' from DER, 21' right of centerline, up to 85' AGL/206' MSL. **Rwy 32,** multiple trees beginning 220' from DER, 453' right of centerline, up to 40' AGL/ 160' MSL. Multiple poles, beginning 1120' from DER, 173' left of centerline, up to 60' AGL/181' MSL.

MADERA, CA

MADERA MUNI

DEPARTURE PROCEDURE: **Rwy 30,** climbing right turn via FRA R-243 to BEREN Int/FRA 18.6 DME then via assigned route. **Rwy 12,** turn left, climb heading 095° to 1500, continue climb direct CZQ VORTAC, then via assigned route.

MAMMOTH LAKES, CA

MAMMOTH YOSEMITE

TAKE-OFF MINIMUMS: **Rwy 9,** 500-2 or std. with a min. climb of 400' per NM to 10700. **Rwy 27,** 5000-5 or std. with a min. climb of 450' per NM to 11800.

DEPARTURE PROCEDURE: **Rwy 9,** climbing left turn heading 050° to intercept BIH R-307. **Rwy 27,** climbing right turn to heading 095° to intercept BIH R-307. **All aircraft** proceed via BIH R-307 to BIH VOR/DME, then via BIH R-322 (V381) to NIKOL Int then via assigned route.

MARINA, CA

MARINA MUNI

TAKE-OFF MINIMUMS: **Rwy 11,** std. with a min. climb of 291' PER nm TO 4600, OR 2000-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 11,** for climb in visual conditions: cross Marina Municipal Airport at or above 2100, continue climb direct SNS VORTAC, thence... **Rwy 29,** climb via heading 288° to 1000', then climbing right turn direct SNS VORTAC, thence...**All aircraft** continue climb in SNS holding pattern (W, left turns, SNS VORTAC 084° inbound) to cross SNS VORTAC at or above MEA/MCA for direction of flight before proceeding enroute.

MARIPOSA, CA

MARIPOSA-YOSEMITE

TAKE-OFF MINIMUMS: **Rwy 8,** N/A-Obstacles

DEPARTURE PROCEDURE: **Rwy 26,** climb via heading 265° to 3000, then climbing left turn to 7000 direct FRA VORTAC before proceeding on course.

NOTE: **Rwy 26,** tree 10' from departure end of runway, 313' left of centerline, 100' AGL/2265' MSL. Tree 1146' from departure end of runway, 303' left of centerline, 100' AGL/2298' MSL.

MARYSVILLE, CA

YUBA COUNTY

DEPARTURE PROCEDURE: **All runways,** climb direct ILA VORTAC.

MERCED, CA

CASTLE (MER)

AMDT 1 09015 (FAA)

TAKE-OFF MINIMUMS: **Rwy 13,** std. w/ min. climb of 250' per NM to 2500 or 2200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 13,** climb heading 126° to 2500 before turning left. For climb in visual conditions: Cross Castle Airport at or above 2200 before proceeding on course. **Rwy 31,** climb heading 306° to 1100 before turning right.

NOTE: **Rwy 13,** tree 2539' from departure end of runway, 1005' right of centerline, 89' AGL/261' MSL. **Rwy 31,** Tree 1274' from departure end of runway, 829' left of centerline, 20' AGL/224' MSL. Trees beginning 2909' from departure end of runway, 542' right of centerline, 65' AGL/269' MSL.

MERCED, CA (CON'T)

MERCED RGNL/MACREADY FIELD (MCE)

AMDT 5A 09155 (FAA)

DEPARTURE PROCEDURE: **Rwy 12,** climbing right turn to 3000 via heading 330° and MOD R-120 to MOD. **Rwy 30,** climb to 3000 via heading 300° and MOD R-120 to MOD.

MODESTO, CA

MODESTO CITY-COUNTY HARRY SHAM FIELD (MOD)

AMDT 5 08269 (FAA)

DEPARTURE PROCEDURE: **Rwys 28L, 28R,** climb on a heading between 256° CW to 109° from departure end of runway, or minimum climb of 230' per NM to 5000 for all other courses.

NOTE: **Rwy 10R,** post 55' from departure end of runway, 204' right of centerline, 15' AGL/85' MSL. Multiple trees beginning 180' from departure end of runway, 295' right of centerline, up to 105' AGL/194' MSL. Multiple trees beginning 839' from departure end of runway, 81' left of centerline, up to 88' AGL/148' MSL. **Rwy 10L,** multiple trees beginning 915' from departure end of runway, 598' right of centerline, up to 87' AGL/167' MSL. **Rwy 28R,** pole 746' from departure end of runway, 700' right of centerline, 40' AGL/133' MSL. Pole 1414' from departure end of runway, 624' right of centerline, 40' AGL/133' MSL. Multiple trees beginning 2069' from departure end of runway, 378' left of centerline, up to 74' AGL/173' MSL. Building 2176' from departure end of runway, 21' left of centerline, 56' AGL/151' MSL. **Rwy 28L ,** light pole 142' from departure end of runway, 519' left of centerline, 40' AGL/136' MSL. Hanger 358' from departure end of runway, 306' left of centerline, 15' AGL/109' MSL. Multiple trees beginning 745' from departure end of runway, 375' left of centerline, up to 79' AGL/173' MSL. Multiple trees, building and antenna beginning 1170' from departure end of runway, 322' right of centerline, up to 57' AGL/152' MSL.

MONTAGUE, CA

SISKIYOU COUNTY

TAKE-OFF MINIMUMS: **Rwy 17,** CAT A,B 2400-2 or std. with a min. climb of 350' per NM to 5500. CAT C,D 4100-2 or std. with a min. climb of 350' per NM to 7400. **Rwy 35,** 4000-2 or std. with a min. climb of 300' per NM to 7000.

DEPARTURE PROCEDURE: **Rwy 17,** climb direct MOG NDB. Continue climb to 10000 in MOG holding pattern (N, right turns, 172° inbound). **Rwy 35,** climb to 7000 via runway heading and 352° bearing from MOG NDB, then climbing right turn to 10000 direct MOG NDB. **All aircraft** depart MOG NDB at or above MEA for route of flight.

MONTEREY, CA

MONTEREY PENINSULA (MRY)
AMDT 6 09295 (FAA)

TAKE-OFF MINIMUMS: **Rwy 10L,** std. w/ min. climb of 428' per NM to 1900 or 1700-2½ for climb in visual conditions. **Rwy 10R,** std. w/ min. climb of 451' per NM to 1900 or 1700-2½ for climb in visual conditions. **Rwy 28L**, std. w/ min. climb of 218' per NM to 800 or 1700-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 10L,** climbing left turn heading 020° and SNS VORTAC R-231 to SNS VORTAC before proceeding on course or for climb in visual conditions, cross Monterey Peninsula airport at or above 1800, then via SNS VORTAC R-231 to SNS VORTAC before proceeding on course. **Rwy 10R,** climbing left turn heading 020° and SNS VORTAC R-231 to SNS VORTAC before proceeding on course or for climb in visual conditions, cross Monterey Peninsula airport at or above 1800, then via SNS VORTAC R-231 to SNS VORTAC before proceeding on course. **Rwy 28L,** climbing right turn heading 045° and SNS VORTAC R-260 to SNS VORTAC before proceeding on course or for climb in visual conditions, cross Monterey Peninsula airport at or above 1800, then via SNS VORTAC R-231 to SNS VORTAC before proceeding on course. **Rwy 28R**, climbing right turn heading 045° and SNS VORTAC R-260 to SNS VORTAC before proceeding on course.

NOTE: **Rwy 10L,** obstruction light on DME 555' from DER, 217' right of centerline, 12' AGL/272' MSL. Tree 1.8 NM from DER, 2817' right of centerline, up to 100' AGL/859' MSL. **Rwy 10R**, obstruction light on DME 64' from DER, 284' left of centerline, 12' AGL/ 272' MSL. Tree 1.7 NM from DER, 2318' right of centerline, up to 100' AGL/859' MSL. **Rwy 28L,** tree 743' from DER, 619' left of centerline, up to 100' AGL/240' MSL. Tree 2.9 NM from DER, 2298' left of centerline, up to 100' AGL/640' MSL. Tree 2.9 NM from DER, 4578' left of centerline, 114' AGL/853' MSL. **Rwy 28R,** airplane 6' from DER, 179' left of centerline, 64' AGL/263' MSL.

MOUNTAIN VIEW, CA

MOFFETT FEDERAL AFLD

TAKE-OFF MINIMUMS: **Rwy 14L,** std. with a min. climb of 489' per NM to 6100. **Rwy 14R,** std. with a min. climb of 495' per NM to 6100. **Rwy 32L,** std. with a min. climb of 429' per NM to 6100. **Rwy 32R,** std. with a min. climb of 424' per NM to 6100.

NAPA, CA

NAPA COUNTY

TAKE-OFF MINIMUMS: **Rwy 6,** 1800-2½, climb in visual conditions to cross Napa County Airport at or above 1700 MSL before proceeding direct SGD VORTAC or std. with a min. climb of 475' per NM to 1400. **Rwys 36L,36R,** 1800-2½, climb in visual conditions to cross Napa County Airport at or above 1700 MSL before proceeding direct SGD VORTAC or std. with a min. climb of 370' per NM to 1200.

DEPARTURE PROCEDURE: **Rwys 6,18L,18R,** turn right. **Rwys 24,36L,36R,** turn left. **All aircraft** climb direct SGD VORTAC. Aircraft departing SGD R-060 CW R-270 climb on course. All others continue climb via SGD R-165 to 2000, then climbing right turn direct SGD VORTAC, climb on course.

NOTE: **Rwy 6,** Flood light 90' from departure end of runway, 500' left of centerline, 30' AGL/64' MSL. Flood light 581' from departure end of runway, 485' left of centerline, 30' AGL/67' MSL. Railroad 1143' to 1236' from departure end of runway, on centerline to 500' left of centerline, 23' AGL/64' to 67' MSL. Pole 1396' from departure end of runway, 741' right of centerline, 33' AGL/77' MSL. Trees 1563' from departure end of runway, 575' left of centerline, 34' AGL/78' MSL. Trees 2331' from departure end of runway, 203' right of centerline, 53' AGL/106' MSL. Trees 3297' from departure end of runway, 476' left of centerline, 52' AGL/ 131' MSL. Obstruction light hopper 3440' from departure end of runway, 273' right of centerline, 50' AGL/133' MSL. Trees 4895' from departure end of runway, 1067' left of centerline, 108' AGL/198' MSL. **Rwy 18L,** tree 4982' from departure end of runway, 237' left of centerline, 58' AGL/92' MSL. **Rwy 24,** bridge 4964' from departure end of runway, 1716' right of centerline, 167' AGL/167' MSL. **Rwy 36R,** floodlight 462' from departure end of runway, 339' right of centerline, 29' AGL/53' MSL. Tree 8701' from departure end of runway, 1286' right of centerline, 70' AGL/289' MSL. Tree 8838' from departure end of runway, 2299' right of centerline, 64' AGL/383' MSL. **Rwy 36L,** terrain 1' from departure end of runway, 491' left of centerline, 34' MSL. Terrain 210' from departure end of runway, 417' left of centerline, 32' MSL. Trees 595' from departure end of runway, 517' right of centerline, 18' AGL/42' MSL. Trees 3182' from departure end of runway, 793' right of centerline, 81' AGL/117' MSL. Trees 4636' from departure end of runway, 345' right of centerline, 114' AGL/153' MSL. Trees 7061' from departure end of runway, 1800' right of centerline, 70' AGL/289' MSL. Pole 12845' from departure end of runway, 1471' right of centerline, 53' AGL/372' MSL. Pole 13005' from departure end of runway, 3483' right of centerline, 39' AGL/558' MSL. Tree 19688' from departure end of runway, 2155' right of centerline, 100' AGL/894' MSL.

NOVATO, CA

GNOSS FIELD

TAKE-OFF MINIMUMS: **Rwy 13,** NA. **Rwy 31,** 500-2 or std. with a min. climb of 250' per NM to 1000.

DEPARTURE PROCEDURE: **Rwy 31,** climbing right turn direct SGD VORTAC before proceeding on course.

OAKDALE, CA

OAKDALE

DEPARTURE PROCEDURE: **Rwy 10,** climbing left turn via heading 020° and LIN VORTAC R-124 to WRAPS INT/LIN 16.66 DME. Climb in WRAPS holding pattern (Northwest, right turn, 124° inbound) to cross WRAPS INT at or above MEA for direction of flight. **Rwy 28,** climb via heading 276° and LIN VORTAC R-146 to LIN VORTAC cross LIN VORTAC at or above MEA for direction of flight.

NOTE: **Rwy 10,** terrain beginning 388' from departure end of runway, up to 279' MSL. **Rwy 28,** powerline 3447' from departure end of runway, 407' right of centerline, 115' AGL/329' MSL.

OAKLAND, CA

METROPOLITAN OAKLAND INTL

DEPARTURE PROCEDURE: **Rwys 9L,9R,11,15,29,** turn right. **Rwys 27L,27R,** maintain runway heading. **Rwy 33,** turn left. **All aircraft** climb to 4000 or above via V107 to COMMO Int. If not at 4000 at COMMO Int, climb in holding pattern (E, right turns, 288° inbound) before proceeding on course.

ORLAND, CA

HAIGH FIELD

DEPARTURE PROCEDURE: **Rwy 15,** climbing left turn. **Rwy 33,** climbing right turn. **All aircraft** climb via CIC R-238 to GONGS Int. Aircraft departing GONGS Int 070° CW 240° or 290° CW 360° climb on course. All others climb in GONGS holding pattern (NE, right turns, 238° inbound) to depart GONGS Int at or above: 001° CW 069°, 3200; 241° CW 289°, 2300.

OROVILLE,CA

OROVILLE MUNI (OVE)

AMDT 2A 09267 (FAA)

TAKE-OFF MINIMUMS: **Rwy 1,** 1300-2 or std. w/ min. climb of 260' per NM to 1700. **Rwy 30,** 400-1¾ or std. w/ min. climb of 245' per NM to 600.

DEPARTURE PROCEDURE: **Rwys 1, 30,** climbing left turn heading 170°. **Rwys 12, 19,** climbing right turn heading 290°. **All aircraft** climb via MXW R-052 to TALUM Int/MXW 16.9 DME. Continue climb on course.

NOTE: **Rwy 1,** light poles beginning 1368' from DER, 538'right of centerline, up to 71'AGL/255' MSL. Tree 513' from DER, 603'left of centerline, 52'AGL/236' MSL. Windsock 1143'from DER, 350' right of centerline, 19' AGL/213'MSL. Ground 191' from DER, 489' right of centerline, 190' MSL. **Rwy 12,** light on pole 128' from DER, 293'right of centerline, 27'AGL/203' MSL. **Rwy 19,** pole 902' from DER, 655' right of centerline, 36' AGL/ 217' MSL. Vehicle on road 819' from DER, 376' left of centerline, 15' AGL/203' MSL. **Rwy 30,** obstruction light on transmission tower 1.4 NM from DER, 1825'right of centerline, 250' AGL/442' MSL. Tree 642' from DER, 638' left of centerline, 52'AGL/244' MSL.

PALO ALTO, CA

PALO ALTO AIRPORT OF SANTA CLARA COUNTY

DEPARTURE PROCEDURE: **Rwy 13**, turn left. **Rwy 31,** turn right. **All aircraft** climb direct SJC VOR/ DME before proceeding on course.

PETALUMA, CA

PETALUMA MUNI

DEPARTURE PROCEDURE: **Rwy 11,** climb to 2400 or above direct SGD VORTAC. **Rwy 29,** climb runway heading to 1500 then climbing left turn to 3000 direct SGD VORTAC. **All aircraft** continue climb to MEA for route of flight.

PLACERVILLE, CA

PLACERVILLE (PVF)

AMDT 2 08045 (FAA)

TAKE-OFF MINIMUMS: **Rwy 5,** NA-obstacles.

DEPARTURE PROCEDURE: **Rwy 23,** climb to 5000 via HNW R-226 then climbing right turn via HNW R-226 to HNW VOR/DME. Aircraft departing HNW VOR/DME R-180 CW R-303 climb on course; all others climb in HNW VOR/DME holding pattern (Hold SW, right turn, 048° inbound) to cross HNW VOR/DME at or above MEA/MCA for direction of flight before proceeding en route.

NOTE: **Rwy 23,** hangar 20' from departure end of runway, 340' right of centerline, 27' AGL/2586' MSL.

PORTERVILLE, CA

PORTERVILLE MUNI

TAKE-OFF MINIMUMS: **Rwy 12,** 200-1 or std. with a min. climb rate of 220' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 12,** climbing right turn. **Rwy 30,** climbing left turn. **All aircraft** climb direct to TTE VOR/DME. Aircraft departing TTE R-146 CW R-330 climb on course. All others, continue climb in TTE holding pattern (NW, right turns, 143° inbound) to cross: TTE R-331 CW R-060, 8600; R-061 CW R-145, 7000.

NOTE: 559' frost fan 3000' east southeast runway 12.

RED BLUFF, CA

RED BLUFF MUNI

TAKE-OFF MINIMUMS: **Rwy 33,** CATS C,D 2500-2 or std. with a min. climb of 300' per NM to 3300.

DEPARTURE PROCEDURE: **Rwy 15,** climb direct RBL VORTAC. **Rwy 33,** climbing right turn direct RBL VORTAC. **All aircraft** departing RBL R-091 CW R-200 climb on course. All others climb in RBL holding pattern (S, right turns, 341° inbound) to depart RBL VORTAC at or above: R-021 CW R-060, 4500; R-061 CW R-090, 2100; R-201 CW R-270, 4000; R-271 CW R-020, 2400.

REDDING, CA

REDDING MUNI

DEPARTURE PROCEDURE: **Rwy 12,** climb heading 122° and RBL R-344 to RBL VORTAC to 3000 before proceeding on course. **Rwy 16,** climbing left turn heading 110° and RBL R-344 to RBL VORTAC to 3000 before proceedingon course. **Rwys 30, 34,** climbing right turn heading 110° and RBL R-344 to RBL VORTAC to 3000 before proceeding on course.

NOTE: **Rwy 12,** multiple trees and bush 86' from departure end of runway, 174' left of centerline up to 87' AGL/576' MSL, fence and equipment 282' from departure end of runway, 330' left of centerline, up to 8' AGL/500' MSL. **Rwy 30,** multiple trees beginning 1936' from departure end of runway, 210' left of centerline, up to 94' AGL/594' MSL, multiple trees beginning 1686' from departure end of runway, 326' right of centerline, 68' AGL/568' MSL. Multiple poles and antenna on hangar beginning 289' from departure end of runway, 385' left of centerline up to 34' AGL/534' MSL. Rod on pole 850' from departure end of runway, 524' right of centerline, 36' AGL/536' MSL. Powerline 2419' from departure end of runway, 1091' left of centerline 84' AGL/584' MSL. Hangar 1126' from departure end of runway, 528' left of centerline, 37' AGL/537' MSL. **Rwy 34,** sign 98' from departure end of runway, 356' left of centerline 5' AGL/510' MSL, tree 588' from departure end of runway, 483' left of centerline 16' AGL/521' MSL.

RIO VISTA, CA

RIO VISTA MUNI

DEPARTURE PROCEDURE: **Rwy 7,** turn left. **Rwys 14,25,32** turn right. **All aircraft** climb direct SAC VORTAC.

SACRAMENTO, CA

MC CLELLAN AIRFIELD (MCC)

AMDT 1 08101 (FAA)

TAKE-OFF MINIMUMS: STANDARD.

SACRAMENTO, CA (CON'T)

SACRAMENTO EXECUTIVE (SAC)

ORIG 08325 (FAA)

NOTE: **Rwy 2,** multiple trees 1128' from departure end of runway, 108' left of centerline, up to 76' AGL/96' MSL. Antenna 1376' from departure end of runway, 663' left of centerline, 51' AGL/71' MSL. Trees 1858' from departure end of runway, 137' right of centerline, 73' AGL/93' MSL. **Rwy 12,** multiple trees 518' from departure end of runway, 26' left of centerline, up to 83' AGL/98' MSL. Light pole 507' from departure end of runway, 336' left of centerline, 37' AGL/52' MSL. Transmission pole 3971' from departure end of runway 647' left of centerline, 130' AGL/154' MSL. Multiple trees 475' from departure end of runway, 476' right of centerline up to 97' AGL/112' MSL. Light poles 711' from departure end of runway, 241' right of centerline, 36' AGL/51' MSL. **Rwy 16,** light pole 22' from departure end of runway, 481'left of centerline, 38' AGL/53' MSL. Antenna 540' from departure end of runway, 516' left of centerline, 53' AGL/67' MSL. Multiple trees beginning 1317' from departure end of runway, 36' left of centerline, up to 78' AGL/88' MSL. Multiple trees beginning 588' from departure end of runway, 195' right of centerline, up to 67' AGL/77' MSL. **Rwy 20,** multiple trees beginning 850' from departure end of runway, 626' left of centerline, up to 92' AGL/107' MSL. Multiple trees beginning 714' from departure end of runway, 515' right of centerline, up to 66' AGL/81' MSL. **Rwy 30,** obstruction light on hangers 460' from departure end of runway, 360' right of centerline, 25' AGL/43' MSL. Multiple trees beginning 631' from departure end of runway, 195' right of centerline, up to 56' AGL/74' MSL. Multiple trees beginning 1331' from departure end of runway, 247' left of centerline, up to 90' AGL/110' MSL. Antenna on building 1543' from departure end of runway, 442' left of centerline, 47' AGL/67' MSL. **Rwy 34,** trees 1724' from departure end of runway, 854' left of centerline, 56' AGL/74' MSL. Tree 2233' from departure end of runway, 1062' right of centerline, 79' AGL/99' MSL.

SACRAMENTO INTL

DEPARTURE PROCEDURE: **Rwy 16L,** climb via heading 164° to 800 before turning east.

SACRAMENTO MATHER

DEPARTURE PROCEDURE: **Rwys 4L,4R,** climbing right turn direct SAC VORTAC. **Rwys 22 L,22R** climb direct SAC VORTAC.

SALINAS, CA

SALINAS MUNI

TAKE-OFF MINIMUMS: **Rwys 3, 14, 21, 32,** NA. **Rwy 8,** CAT C,D 3600-2 or std. with a min. climb of 420' per NM to 4100. **Rwy 13,** CAT C,D 3600-2 or std. with min. climb of 500' per NM to 4000. **Rwy 31,** RVR/24, FAR 135.

DEPARTURE PROCEDURE: **Rwys 8, 13, 26,** turn right. **Rwy 31,** turn left. Climb on SNS R-275 to 2000, then climbing right turn to cross SNS VORTAC at or above 3000.

SAN ANDREAS, CA

CALAVERAS CO-MAURY RASMUSSEN FIELD

TAKE-OFF MINIMUMS: **Rwy 13,** 1800-5 or std. with a min. climb of 290' per NM to 3100.

DEPARTURE PROCEDURE: **Rwy 13,** climb runway heading to 3100, then climbing right turn via LIN R-085 to LIN VORTAC. **Rwy 31,** climb via heading 311° to 3000, then climbing left turn via Linden (LIN) VORTAC R-029 to LIN VORTAC.

SAN CARLOS, CA

SAN CARLOS (SQL)

AMDT 1 09295 (FAA)

TAKE-OFF MINIMUMS: **Rwy 30**, NA.

DEPARTURE PROCEDURE: **Rwy 12,** climbing left turn via heading 120° and SJC VOR/DME R-281 to SJC VOR/DME before proceeding on course.

NOTE: **Rwy 12,** ground 0' from DER, 148' left of centerline, 0' AGL/11' MSL. Building 2' from DER, 167' right of centerline, 27' AGL/30' MSL. Levee beginning 117' from DER, 90' left of centerline, up to 12' AGL/12' MSL. Pole 715' from DER, 294' right of centerline, 34' AGL/38' MSL. Tower 1674' from DER, 741' right of centerline, 106' AGL/111' MSL.

SAN FRANCISCO, CA

SAN FRANCISCO INTL

TAKE-OFF MINIMUMS: **Rwy 19L,** 2000-2 or std. with a min. climb of 520' per NM to 2300. **Rwy 19R,** 2000-2 or std. with a min. climb of 500' per NM to 2300. **Rwys 28L, 28R,** 800-2 or std. with a min. climb of 270' per NM to 1000.

DEPARTURE PROCEDURE: **Rwys 1L,1R, 28L, 28R,** climb runway heading to 2000. **Rwys 10L,10R, 19L, 19R,** climbing left turn via heading 050° and SFO R-090. **All aircraft** continue climb on course.

SAN JOSE, CA

NORMAN Y MINETA SAN JOSE INTL (SJC)

AMDT 6A 09267 (FAA)

TAKE-OFF MINIMUMS: **Rwys 11, 12R**, 400-2½ or std. with a min. climb of 260' per NM to 500. **Rwy 12L**, 400-1¾ or std. with a min. climb of 278' per NM to 500.

DEPARTURE PROCEDURE: **Rwys 11, 12L, 12R,** climbing right turn via heading 315° to 2000, then via OAK R-135 to OAK VORTAC before proceeding on course. **Rwys 29, 30L, 30R**, Climb via heading 312° to 2000, then via OAK R-132 to OAK VORTAC before proceeding on course.

NOTE: **Rwy 11**, multiple trees beginning 1837' from DER, 230' right of centerline, up to 85' AGL/154' MSL. Crane 2.14 NM from DER, 1144' left of centerline, 305' AGL/389' MSL. **Rwy 12L**, multiple cranes, trees, and bldg beginning 286' from centerline, 69' right of centerline, up to 305' AGL/389' MSL. Multiple antennas, poles, bldg, and trees beginning 191' from DER, 48' left of centerline, up to 275' AGL/366' MSL. **Rwy 12R**, multiple antennas, bldg, cranes, poles, and trees beginning 1402' from DER, 194' left of centerline, up to 305' AGL/389' MSL. Multiple antennas, bldg, cranes, poles, and trees beginning 659' from DER, 150' right of centerline, up to 73' AGL/142' MSL. **Rwy 29**, tree 2252' from DER, 114' left of centerline, 86' AGL/125' MSL. OL on GS 821' from DER, 400' right of centerline, 35' AGL/74' MSL. **Rwy 30L,** multiple antennas, poles, towers, and trees beginning 1014' from DER, 350' left of centerline, up to 59' AGL/94' MSL. Multiple antennas, poles, and trees beginning 1279' from DER, 379' right of centerline, up to 52' AGL/88' MSL. **Rwy 30R**, multiple antennas, fences, and poles beginning 139' from DER, 40' right of centerline, up to 95' AGL/124' MSL. Multiple poles and trees beginning 185' from DER, 38' left of centerline, up to 51' AGL/85' MSL.

REID-HILLVIEW OF SANTA CLARA COUNTY

TAKE-OFF MINIMUMS: **Rwys 13L, 13R,** NA - environmental.

DEPARTURE PROCEDURE: Use DECOT DEPARTURE.

SAN MARTIN, CA

SOUTH COUNTY AIRPORT OF SANTA CLARA COUNTY

TAKE-OFF MINIMUMS: **Rwy 14,** NA. **Rwy 32,** 400-2 or std. with a min. climb of 350' per NM to 4000.

DEPARTURE PROCEDURE: **Rwy 32, all aircraft** climb runway heading to 2200, aircraft departing northwest via V-485, climbing left turn to 4600, heading 270° to intercept SJC R-121 (V-485) to SJC VOR/DME proceed on course; aircraft departing southeast via V-485, climbing left turn to 4600, heading 170° to intercept SJC R-121 (V485) southeast bound to GILRO Int and proceed on course.

SANTA ROSA, CA

CHARLES M. SCHULZ-SONOMA COUNTY

TAKE-OFF MINIMUMS: **Rwy 1,** std. with a min. climb of 267' per NM to 2400, or 1000-2½ for climb in visual conditions. **Rwy 32,** std. with a min. climb of 314' per NM to 2400, or 1000-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 1, 32,** climbing left turn heading 164°, thence...or climb in visual conditions to cross the STS VOR/DME southwestbound at or above 1100, thence...**Rwy 14,** climbing right turn heading 250°, thence...**Rwy 19,** climb on heading 190°, thence...

...intercept and climb via STS R-202 to FREES INT, cross FREES at or above MEA for route of flight or continue climb in FREES holding pattern (SE, right turns, PYE VORTAC 334.73 inbound) to MEA for route of flight.

NOTE: **Rwy 1,** tree 739' from departure end of runway, 525' left of centerline, 40' AGL/141' MSL. **Rwy 14,** multiple trees beginning 321' from departure end of runway, 421' left of centerline up to 73' AGL/172' MSL. Tree 2113' from departure end of runway, 721' right of centerline, 77' AGL/176' MSL. **Rwy 19,** posts 39' from departure end of runway, 259' right of centerline, 7' AGL/126' MSL. Multiple trees beginning 1482' from departure end of runway, 461' right of centerline, up to 100 ' AGL/253' MSL. Multiple trees beginning 1666' from departure end of runway, 58' left of centerline, up to 55' AGL/257' MSL. **Rwy 32,** windsock 39' from departure end of runway, 341' left of centerline, 25' AGL/133' MSL. Multiple trees beginning 810' from departure end of runway, 87' right of centerline up to 50' AGL/205' MSL. Multiple trees beginning 2419' from departure end of runway, 167' left of centerline, up to 50' AGL/216' MSL.

SOUTH LAKE TAHOE, CA

LAKE TAHOE

TAKE-OFF MINIMUMS: **Rwy 18,** 4000-3 or std. with min. climb of 700' per NM to 9800. **Rwy 36,** 2700-3 or std. with a min. climb of 400' per NM to 8300.

DEPARTURE PROCEDURE: **Rwy 18,** climb runway heading to 9800, then continue climbing right turn via heading 280° and SWR R-152 to SWR VOR/DME. **Rwy 36,** climb runway heading to 8300, then continue climbing left turn via heading 340° and SWR R-102 to SWR VOR/DME. Then **all aircraft** proceed on course.

STOCKTON, CA

STOCKTON METROPOLITAN (SCK)

ORIG 09015 (FAA)

TAKE-OFF MINIMUMS: **Rwy 29R,** 300-1¼ or std. w/ min. climb of 210' per NM to 300 or alternatively, with standard take-off minimums and a normal 200'/NM climb gradient, take-off must occur no later than 1300' prior to departure end of runway.

NOTE: **Rwy 11L,** truck on road 199' from departure end of runway, 439' left of centerline, 15' AGL/49' MSL. Obstruction light on blast fence and antenna on building beginning 294' from departure end of runway, 39' right of centerline, up to 20' AGL/50' MSL. **Rwy 29L,** antenna on building 2956' from departure end of runway, 1204' left of centerline, 90' AGL/117' MSL. Stack 5562' from departure end of runway, 1721' right of centerline, 143' AGL/171' MSL. **Rwy 29R,** obstruction light on grain elevator, 1.0 NM from departure end of runway, 1882' left of centerline, 161' AGL/191' MSL. Light tower and rod on field light tower beginning 245' from departure end of runway, 1' left of centerline up to 44' AGL/71' MSL. Stacks and light on silo beginning 256' from departure end of runway, 381' right of centerline, up to 144' AGL/171' MSL.

SUSANVILLE, CA

SUSANVILLE MUNI

DEPARTURE PROCEDURE: Use AMEDEE DEPARTURE.

TRACY, CA

TRACY MUNI (TCY)

AMDT 3 09295 (FAA)

TAKE-OFF MINIMUMS: **Rwy 26,** 700-3 or std. w/ a min. climb of 320' per NM to 1000.

DEPARTURE PROCEDURE: **Rwy 8**, climb to 3000 via heading 073° and MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course. **Rwy 12,** climbing left turn to 3000 to intercept MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course. **Rwy 26,** climbing right turn to 3000 via heading 150° and MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course. **Rwy 30,** climbing right turn to 3000 via heading 150° to intercept MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course.

NOTE: **Rwy 8,** tree 472' from DER, 198' left of centerline, 50' AGL/194' MSL. Fence 167' from DER, 8' right of centerline, 25' AGL/176' MSL. Vehicle on road 241' from DER, 412' left of centerline, 15' AGL/183' MSL. Vehicles on roads starting 241' from DER, 7' right of centerline, up to 15' AGL/189' MSL. Poles starting 403' from DER, 204' left of centerline, up to 54' AGL/208' MSL. Poles starting 727' from DER, 49' right of centerline, up to 54' AGL/212' MSL. **Rwy 12,** trees starting 436' from DER, 251' right of centerline, up to 72' AGL/253' MSL. Conveyor 1995' from DER, 504' left of centerline, 66' AGL/ 270' MSL. Poles starting 832' from DER, 396' right of centerline, up to 56' AGL/240' MSL. Obstruction light on hopper 1934' from DER, 274' right of centerline, 74' AGL/255' MSL. Vehicles on road starting 133' from DER, 272' left of centerline, up to 15' AGL/206' MSL. Fence 32' from DER 405' left of centerline, 25' AGL/194' MSL. **Rwy 26,** tree 1173' from DER, 180' right of centerline, 35' AGL/234'MSL. Trees starting 1067' from DER, 125' left of centerline, up to 35' AGL/794' MSL. Vehicle on road 236' from DER, 150' left of centerline, 15' AGL/214' MSL. Fence 69' from DER, 133' left of centerline, 23' AGL/203' MSL. Rising terrain 11105' from DER, 2814' left of centerline, up to 739' MSL. **Rwy 30,** trees starting 438' from DER, 30' right of centerline, up to 35' AGL/209' MSL. Tree 1079' from DER, 82' left of centerline, 35' AGL/214' MSL. Obstruction light on hopper 985' from DER, 353' right of centerline, 72' AGL/236' MSL. Bush 195' from DER, 364' left of centerline, 25' AGL/189' MSL. Light pole 1149' from DER, 160' left of centerline, 47' AGL/211' MSL. Obstruction light on building 2289' from DER, 65' right of centerline, 74' AGL/238' MSL.

TRAVIS AFB (KSUU)

FAIRFIELD, CA 09295

All Rwy: Comply with assigned SID or ATC radar vectors.

TAKE-OFF OBSTACLES: **Rwy 3L,** 56' MSL, Terrain 10' to 46' from DER, 500' left of centerline. **Rwy 21L,** Light pole 15' AGL/83' MSL, 148' from DER, 546' left of centerline. Light pole 15' AGL/84' MSL, 346' from DER, 547' left of centerline. Light pole 15' AGL/84' MSL, 521' from DER, 548' left of centerline. Light pole 15' AGL/83' MSL, 702' from DER, 549' left of centerline. Light pole 15' AGL/84' MSL, 880' from DER, 549' left of centerline. Light pole 15' AGL/85' MSL, 926' from DER, 661' left of centerline.

DEPARTURE PROCEDURE: **Rwy 3L,** Climb on a heading between 344° CW to 137° from DER. **Rwy 3R,** Climb on a heading between 328° CW to 140° from DER.

TRUCKEE, CA

TRUCKEE-TAHOE (TRK)

AMDT 4 08269 (FAA)

TAKE-OFF MINIMUMS: **Rwys 10, 19,** NA-obstacles.

DEPARTURE PROCEDURE: **Rwys 1, 28,** use TRUCK DEPARTURE.

TULARE, CA

MEFFORD FIELD

DEPARTURE PROCEDURE: **Rwy 13,** climbing right turn. **Rwy 31,** climbing left turn. **All aircraft** climb direct to VIS VOR/DME. Aircraft departing VIS R-001 CW R-140 continue climb in VIS holding pattern (E, right turns, 287° inbound) to cross VIS VOR/DME at or above 4000. All other aircraft climb on course.

UKIAH, CA

UKIAH MUNI

TAKE-OFF MINIMUMS: **Rwy 15,** NA. **Rwy 33,** 300-1 and min. climb of 350' per NM to 4000.

DEPARTURE PROCEDURE: Climb to 4000 via heading 350° then climbing left turn to 6000 direct ENI.

VACAVILLE, CA

NUT TREE (VCB)

AMDT 4 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwy 20,** std. w/ min. climb of 424' per NM to 1600, or 1200-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 2,** climbing right turn to intercept SAC R-242 to SAC VORTAC, to 2000 before proceeding on course. **Rwy 20,** climbing left turn to intercept SAC R-242 to SAC VORTAC, to 2000 before proceeding on course, or, for climb in visual conditions: cross Nut Tree Airport eastbound at or above 1300, then climb to 2000 via SAC R-242 to SAC VORTAC, proceed on course.

NOTE: **Rwy 2,** trees beginning 222' from DER, 514' left of centerline up to 106' AGL/225' MSL. Light pole 337' from DER, 534' left of centerline, 28' AGL/147' MSL. **Rwy 20,** pole 161' from DER, 500' left of centerline, 120' AGL/239' MSL. Trees beginning 269' from DER, 335' left of centerline, up to 117' AGL/236' MSL. Pole 777' from DER, 436' left of centerline, 119' AGL/238' MSL. Windsock 6' from DER, 166' right of centerline, 8' AGL/ 127' MSL. Fence 193' from DER, 202' right of centerline, 3' AGL/122' MSL.

VISALIA, CA

VISALIA MUNI (VIS)

AMDT 3 09239 (FAA)

DEPARTURE PROCEDURE: **Rwy 12,** climbing right turn via heading 230° to 2000 to intercept V23. **Rwy 30,** climbing left turn via heading 230° to 2000 to intercept V23.

NOTE: **Rwy 12,** tree 774' from DER, 618' right of centerline, 46' AGL/340' MSL. Tree 1327' from DER, 823' left of centerline, 55' AGL/349' MSL. **Rwy 30,** multiple trees beginning 179' from DER, 260' left of centerline, up to 54' AGL/343' MSL. Antenna on building 285' from DER, 250' right of centerline, 16' AGL/305' MSL. Truck on road 522' from DER, on centerline, 17' AGL/342' MSL. Railroad 690' from DER, 549' left of centerline, 23' AGL/317' MSL. Multiple trees beginning 876' to 3029' from DER, 341' to 461' left of centerline, up to 90' AGL/379' MSL. Multiple trees beginning 1886' from DER, 103' right of centerline, up to 58' AGL/347' MSL.

WATSONVILLE, CA

WATSONVILLE MUNI

TAKE-OFF MINIMUMS: **Rwy 2,** 1100-2 CAT A,B, 1900-2 CAT C,D or std. with a min. climb of: CAT A,B 330' per NM to 2200; CAT C,D 460' per NM to 2400. **Rwy 8,** std. with a min. climb of 290' per NM to 2200. **Rwy 20,** std. with a min. climb of 330' per NM to 2200. **Rwy 26,** std. with a min. climb of 330' per NM to 2200.

DEPARTURE PROCEDURE: **Rwy 2** climbing right turn. **Rwy 20,** climb runway heading. **Rwy 26,** climbing left turn. **All aircraft** intercept 212° bearing from PAJAR NDB and climb to cross MOVER Int at or above 2200. Climb in MOVER INT holding pattern (NE, right turns, 212° inbound) until reaching MEA or assigned altitude.

NOTE: **Rwy 2,** 40' AGL pole 17' from departure end of runway, 340' left of centerline. **Rwy 8,** 189' AGL tower 4696' from departure end of runway, 1200' right of centerline. **Rwy 20,** 106' AGL tree 954' from departure end of runway, 550' left of centerline. **Rwy 26,** 174' AGL tree 625' from departure end of runway, 580' left of centerline.

WILLITS, CA

ELLS FIELD-WILLITS MUNI

DEPARTURE PROCEDURE: **Rwy 16,** use MENDOCINO RNAV DEPARTURE. **Rwy 34,** use FLUEN RNAV DEPARTURE.

WILLOWS, CA

WILLOWS-GLENN COUNTY

DEPARTURE PROCEDURE: **Rwy 13,** climbing right turn. **Rwy 16,** climb runway heading. **Rwy 31, 34,** climbing left turn. **All aircraft** climb direct to MXW VORTAC. Aircraft departing MXW Vortac R-330 CW R-220, climb on course. All others continue climb in MXW holding pattern (S, 350° inbound, left turns) to depart MXW Vortac 220° CW 290°, 6500, 291° CW 330°, 5500.

NOTE: **Rwy 34,** 55' AGL pole 530' from departure end of runway, 430' right of centerline.

WOODLAND, CA

WATTS-WOODLAND (O41)

AMDT 3 09127 (FAA)

DEPARTURE PROCEDURE: **Rwy 18,** climb heading 185° and ILA R-151 to EMBER INT/ILA 48 DME before proceeding on course. **Rwy 36,** climbing left turn via heading 320° and ILA R-145 to ILA VORTAC before proceeding on course.

NOTE: **Rwy 18,** tree 2478' from DER, 283' right of centerline, 100' AGL/249' MSL. Vehicle on road 192' from DER, on centerline, 15' AGL/144' MSL. **Rwy 36,** tree 453' from DER, 69' left of centerline, 100' AGL/224' MSL. Vehicle on road 350' from DER, on centerline, 15' AGL/134' MSL. Tree 4489' from DER, 1688' left of centerline, 100' AGL/234' MSL.

INSTRUCTION APPROACH PROCEDURE CHARTS

IFR TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude , and/or airports that have civil IFR take-off minimums other than standard, are listed below. Take-off Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or a separate Departure Procedure volume (military), as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not assigned a SID or radar vector by ATC, an ODP may be flown without ATC clearance to ensure obstacle clearance.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard take-off rules and establishes take-off minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) take-off minima are published below. For military take-off minima, refer to appropriate service directives.

NAME TAKE-OFF MINIMUMS

APPLE VALLEY, CA

APPLE VALLEY

TAKE-OFF MINIMUMS: **Rwy 36,** 300-1 or std . with a min. climb gradient of 340' per NM until 5800. **Rwy 8,18,26,** NA.

DEPARTURE PROCEDURE: Use EXCON ONE RNAV DEPARTURE. **Rwy 8,18,26,** NA.

AVALON, CA

CATALINA

DEPARTURE PROCEDURE: **Rwys 4,22,** climb straight ahead to 2300 then proceed on course.

BAKERSFIELD, CA

BAKERSFIELD MUNI

TAKE-OFF MINIMUMS: **Rwy 16,** 300-1 or std. with a min. climb of 230' per NM to 500. **Rwy 34,** 400-2 or std. with a min. climb of 400' per NM to 800.

DEPARTURE PROCEDURE: **Rwy 16,** turn right. **Rwy 34,** turn left. **All aircraft** climb direct EHF VORTAC. Aircraft departing EHF R-120 CW R-360, climb on course, all others continue climb in EHF VORTAC holding pattern (NW, right turns, 144° inbound) to cross EHF at or above 4000, before proceeding on course.

NOTE: 120' powerlines on centerline, 2551' from departure end of runway 16.

NAME TAKE-OFF MINIMUMS

BAKERSFIELD, CA (CON'T)

MEADOWS FIELD

DEPARTURE PROCEDURE: **All aircraft** climbing right turn direct EHF VORTAC. Aircraft departing EHF R-180 CW R-350 climb on course. All others continue climb northwestbound via EHF R-324, then climbing left turn to cross EHF VORTAC at or above: EHF R-110 CW R-179 3000; EHF R-351 CW R-109 4000.

BIG BEAR CITY, CA

BIG BEAR CITY

TAKE-OFF MINIMUMS: **Rwy 8,** 1200-2 or std. with a min. climb of 282' per NM to 8000. **Rwy 26,** NA.

DEPARTURE PROCEDURE: Use OKACO RNAV DEPARTURE. **Rwy 26,** NA.

BLYTHE, CA

BLYTHE

TAKE-OFF MINIMUMS: **Rwy 26,** 700-2 or std. with a min. climb of 330' per NM to 1100.

DEPARTURE PROCEDURE: **Rwys 8,17,35,** turn right. **Rwy 26,** turn left, climb to 1500 via heading 180° and BLH R-120, then climbing left turn direct BLH VORTAC, MCA 2000.

BORREGO SPRINGS, CA

BORREGO VALLEY (L08)
AMDT 2 08101 (FAA)
DEPARTURE PROCEDURE: Use ZUNGU DEPARTURE (RNAV).

BRAWLEY, CA

BRAWLEY MUNI
TAKE-OFF MINIMUMS: **Rwy 26,** NA.
DEPARTURE PROCEDURE: **Rwy 8,** turn right. Climb to 3000 via IPL R-009 to IPL VORTAC, then climb on course.

BURBANK, CA

BOB HOPE
TAKE-OFF MINIMUMS: **Rwy 8,** Cats A,B 1500-2 or std. with 480' per NM to 2400. Cats C,D 2300-2 or std. with 650' per NM to 3200. **Rwy 15,** 1300-2 or std. with 290' per NM to 2100. **Rwy 33,** 1100-2 or std. with 390' per NM to 2000.
DEPARTURE PROCEDURE: **Rwy 26,** climb direct VNY VOR/DME. **Rwys 8,15,** climbing right turn. **Rwy 33,** climbing left turn direct to VNY VOR/DME. **All aircraft** continue climb to MEA. North/westbound via V326 to GINNA Int, south/eastbound via V186 to DARTS Int.

CALIFORNIA CITY, CA

CALIFORNIA CITY MUNI
DEPARTURE PROCEDURE: Use CALIFORNIA CITY (RNAV) DEPARTURE.

CALIPATRIA, CA

CLIFF HATFIELD MEMORIAL
DEPARTURE PROCEDURE: **Rwy 8,** climb runway heading to 400', then climbing right turn to 3000 via heading 200° and IPL R-336 to IPL VORTAC. **Rwy 26,** climb runway heading to 400', then climbing left turn to 3000 via IPL R-336 to IPL VORTAC.

CAMARILLO, CA

CAMARILLO
TAKE-OFF MINIMUMS: **Rwy 8,** 1100-2 or std. with a min. climb of 250' per NM to 1500.
DEPARTURE PROCEDURE: **Rwy 8,** climb to 2500 via CMA R-061. **Rwy 26,** climbing right turn to 2500 via CMA R-265. **All aircraft** climbing left turn direct CMA VOR/DME. Continue climb on course to assigned altitude.

CAMP PENDLETON MCAS (MUNN FIELD) (KNFG)

OCEANSIDE, CA 09015
RWY 3: Diverse departures not authorized.
RWY 21: Cross DER 35' AGL/96' MSL or above. Diverse departure authorized between 199° to 226° CW – Civil standard with minimum obstacle climb of 500 ft/NM to 1000'; Military standard with minimum obstacle climb of 430 ft/NM to 800'. 800-2 ceiling and vis authorized in lieu of minimum climb rate.
TAKE-OFF OBSTACLES: **RWY 3:** Multiple trees up to 101' AGL/165' MSL, beginning 2180' from DER, 490' to 700' right of centerline. Tree 66' AGL/141' MSL, 2209' from DER, 207' left of centerline. Tree 101' AGL/164' MSL, 2286' fromDER, 506' right of centerline. Antenna 276' MSL, 4525' from DER, 1233' left of centerline. Terrain 739' MSL, 4.02 NM from DER, 3721' left of centerline. **RWY 21:** Terrain 219' MSL, 3790' from DER, 815' left of centerline. Terrain 399' MSL, 5598' from DER, 1853' left of centerline. Terrain 530' MSL, 1.5 NM from DER, 943' right of centerline. Antennas and Tower up to 50' AGL/623' MSL, beginning 1.5 NM from DER, 2390' to 2745' right of centerline. Multiple Pylons and Terrain up to 50' AGL/606' MSL, beginning 1.6 NM from DER, 1022' to 1605' right of centerline. TACAN 70' AGL/560' MSL, 1.75 NM from DER, 90' right of centerline. Trees 43' AGL/104' MSL, 552' from DER, 182' right of centerline. Trees 63' AGL/124' MSL, 836' from DER, 714' left of centerline. Trees 40' AGL/101' MSL, 502' from DER, 273' left of centerline.

CARLSBAD, CA

MC CLELLAN-PALOMAR
TAKE-OFF MINIMUMS: **Rwy 6,** 1400-2 or std. with a min. climb of 260' per NM to 2100.
DEPARTURE PROCEDURE: **Rwy 6,** climbing left turn to 3100 heading 245°. **Rwy 24,** climb runway heading to 2800. **All aircraft** climb on course.

CHINA LAKE NAWS (ARMITAGE FLD)(KNID)

RIDGECREST, CA 07130
Rwy 3, 8, Diverse departure not authorized.
Rwy 14, Diverse departures authorized 071° to 141° CW with minimum civil climb of 450'/NM to 6900, minimum military climb of 390'/NM to 6300. 141° to 211° CW with minimum civil climb of 310'/NM to 5400, minimum military climb of 290'/NM to 5100.
Rwy 21, Diverse departures authorized 143° to 208° CW with minimum civil climb of 310'/NM to 5900, minimum military climb of 280'/NM to 5600.
Rwy 26, Diverse departures authorized 143° to 200° CW with minimum civil climb of 300'/NM to 5900, minimum military climb of 280'/NM to 5600. Turn left on departure to assigned heading. Maximum departure speed 250 KIAS until established on assigned heading. **Rwy 32**, Diverse departures authorized 126° to 175° CW with minimum civil climb of 350'/NM to 6300, minimum military climb of 310'/NM to 5900. Turn left on departure to assigned heading. Maximum departure speed 250 KIAS until established on assigned heading.
TAKE-OFF OBSTACLES: **Rwy 14**, Tower 176' AGL/2415' MSL, 5545' from DER, 246' right of centerline.

CHINO, CA

CHINO

TAKE-OFF MINIMUMS: **Rwy 3,** std. with a min. climb of 270' per NM to 4800. **Rwys 8L/R,** std. with a min. climb of 270' per NM to 4800. **Rwy 21,** Cat A/B std. with a min climb of of 290' per NM to 4800, Cat C/D std. with a min. climb of 400' per NM 4800. **Rwys 26L/R,** Cat A/B std. with a min. climb of 270' per NM to 4800, Cat C/D std. with a min. climb of 410' per NM to 4800.

DEPARTURE PROCEDURE: **Rwys 3, 8L/R,** climbing right turn direct PDZ VORTAC. **Rwys 21,26L/R,** climbing left turn direct PDZ VORTAC. **All aircraft** climb in PDZ VORTAC holding pattern (Hold E, right turns, 258° inbound) to the appropriate MEA.

NOTE: 108' AGL trees 1200' from departure end of runway 3, 600' left of centerline.

CORONA, CA

CORONA MUNI

TAKE-OFF MINIMUMS: **Rwy 7,** 1000-2 or std. with a min. climb of 310' per NM to 1700. **Rwy 25,** 600-2 or std. with a min. climb of 280' per NM to 1200.

DEPARTURE PROCEDURE: **Rwy 7,** climbing left turn. **Rwy 25,** climbing right turn. **All aircraft** continue climb direct to PDZ VORTAC. Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ VORTAC holding pattern (Hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-141 CW R-230 4000, R-281 CW R-090 6700.

DAGGETT, CA

BARSTOW-DAGGETT (DAG)

AMDT 2 09295 (FAA)

TAKE-OFF MINIMUMS: **Rwy 22,** std w/ min. climb of 401' per NM to 4400 or 3500-3 for climb in visual conditions. **Rwy 26,** std. w/ min. climb of 432' per NM to 4600 or 3500-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 4,** climb direct DAG VORTAC. Thence...**Rwy 8,** climbing left turn direct DAG VORTAC. Thence...**Rwys 22,26,** climbing right turn heading 090° and DAG VORTAC R-224 to DAG VORTAC. Thence...

...climb in DAG VORTAC holding pattern (NE, left turns, 224° inbound) to cross DAG VORTAC at or above 7500 before proceeding on course, or for climb in visual conditions: cross Barstow-Daggett airport Northeastbound at or above 5300, then climb to 7500 via DAG R-224 to DAG VORTAC before proceeding on course.

NOTE: **Rwy 4,** multiple bushes, terrain, and AG equipment beginning at DER, from 295' left and 286' right of centerline, up to 40' AGL/1928' MSL. **Rwy 8,** multiple trees and bushes beginning 113' from DER, from 343' left and 259' right of centerline, up to 40' AGL/1924' MSL. **Rwy 22,** multiple terrain beginning at 5668' from DER, from 2019' right and 2019' left of centerline, up to 3895' MSL. **Rwy 26,** road beginning 360' from DER, from 596' left and 596' right of centerline, up to 15' AGL/1946' MSL. Railroad beginning 953' from DER, from 755' left and 755' right of centerline, up to 23' AGL/1958' MSL.

DELANO, CA

DELANO MUNI (DLO)

AMDT 3A 08129 (FAA)

TAKE-OFF MINIMUMS: **Rwy 32,** 400-1 or std. with a min. climb rate of 390' per NM to 400.

DEPARTURE PROCEDURE: **Rwy 14,** Climb via heading 140° and EHF VORTAC R-324 to 3000 before proceeding on course. **Rwy 32,** climb via heading 320° and EHF VORTAC R-324 to 3000 before proceeding on course.

NOTE: 65' AGL tree 600' from departure end of runway, 500' left of centerline runway 14.

EDWARDS AF AUX NORTH BASE (9L2)

EDWARDS, CA

Rwy 6-24, climb on course, cross 15 NM from ARP at or above 4500.

EDWARDS AFB (KEDW)

EDWARDS, CA 08269

Rwy 4L/R, Radar Required, Climb 340/NM to 5500, track inbound on EDW R-223 to EDW VORTAC, then out EDW R-043. Climb as instructed, expect radar vectors after passing 4500 or climb on course, cross 15 NM from ARP at or above 4500. **Rwy 22L/R,** Radar and DME Required. CAT ABC track outbound EDW R-223. At 12 DME turn right heading 020, intercept EDW R-247 to EDW VORTAC. Climb as instructed, expect radar vectors after passing 4500 or climb on course, cross 15 NM from ARP at or above 4500. CAT DE track outbound EDW R-223. At 12 DME turn right, intercept EDW R-247 to EDW VORTAC. Climb as instructed, expect radar vectors after passing 4500 or climb on course, cross 15 NM from ARP at or above 4500.

EL CENTRO NAF (KNJK)

EL CENTRO, CA 09127

Diverse Departures not authorized.

DEPARTURE PROCEDURE: **All Rwys,** use published departure procedure or if ceiling and visibility is below 2100-2½, make climbing turn direct IPL VORTAC within 3.6 DME of NJK TACAN and expect radar vectors to join assigned route. Expect filed altitude 10 minutes after departure. Cross IPL VORTAC at or below 7000.

EL MONTE, CA

EL MONTE

TAKE-OFF MINIMUMS: **Rwy 1,** 600-1 or std. with a min. climb of 280' per NM to 1000. **Rwy 19,** 1200-2 or std. with min. climb of 230' per NM to 1900.

DEPARTURE PROCEDURE: **Rwy 1,** climbing right turn. **Rwy 19,** climb runway heading to 800 then climbing left turn. **All aircraft** intercept PDZ R-278 to PDZ VORTAC. Aircraft departing PDZ R-091 CW R-280 climb on course. All others continue climb in PDZ holding pattern (NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-281 CW R-090, 6700.

FALLBROOK, CA

FALLBROOK COMMUNITY AIRPARK

TAKE-OFF MINIMUMS: **Rwy 36,** CAT A,B, 700-2 or std. with a min. climb of 340' per NM to 5000.

DEPARTURE PROCEDURE: **Rwy 18,** climb runway heading to 1200, then climbing left turn via heading 160° to join V208-458. Aircraft westbound proceed on course. Aircraft eastbound V208-458 proceed to VISTA Int and climb in holding pattern (E, left turns, 263° inbound) to 5000 before proceeding on course. **Rwy 36,** climb runway heading to 1500, then climbing right turn to intercept OCN VORTAC R-027 to TANNR Int before proceeding on course.

FULLERTON, CA

FULLERTON MUNI (FUL)

AMDT 4A 08185 (FAA)

TAKE-OFF MINIMUMS: **Rwy 6,** std. with a min. climb of 230' per NM to 900, or 1100-2½ for climb in visual conditions. **Rwy 24,** std. with a min. climb of 320' per NM to 2300, or 1100-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 6,** climbing right turn to 2300 direct SLI VORTAC, or for climb in visual conditions: cross Fullerton Airport southwest bound at or above 1100, then climb to 2300 via SLI R-020 to SLI VORTAC. **Rwy 24,** climbing left turn to 2300 direct SLI VORTAC, or for climb in visual conditions: cross Fullerton Airport southwest bound at or above 1100, then climb to 2300 via SLI R-020 to SLI VORTAC.

NOTE: **Rwy 6,** obstruction light 109' from departure end of runway, 117' left of centerline, 22' AGL/118' MSL. Train 122' from departure end of runway, 106' left of centerline, 23' AGL/121' MSL. Multiple poles 58' to 1003' from threshold centerline to 373' right of centerline, 39' AGL/135' MSL. Hopper on building 977' from departure end of runway, 468' left of centerline, 36' AGL/132' MSL. Light pole 1247' from threshold, 143' left of centerline, 35' AGL/131' MSL. Tree 1463' from departure end of runway, 35' left of centerline, 72' AGL/168' MSL. Obstruction light 1620' from departure end of runway, 318' right of centerline, 50' AGL/146' MSL. Pole 2234' from departure end of runway, 754' left of centerline, 78' AGL/174' MSL. Pole 3597' from departure end of runway, 793' left of centerline, 102' AGL/198' MSL. Building 3208' from departure end of runway, 820' right of centerline, 112' AGL/217' MSL. Tower 1 NM from departure end of runway, 1937' left of centerline, 94' AGL/267' MSL. Pole 1.6 NM from departure end of runway, 1.5 NM left of centerline, 90' AGL/575' MSL. Tower 1.1 NM from departure end of runway, 1.7 NM left of centerline, 130' AGL/729' MSL. Tower 2 NM northwest of departure end of runway, 760' AGL/820' MSL. **Rwy 24,** road 82' from departure end of runway, on centerline, 15' AGL/99' MSL. Light 85' from departure end of runway, 260' right of centerline, 25' AGL/110' MSL. Light 217' from departure end of runway, 320' left of centerline, 104' AGL/122' MSL. Antenna on building 272' from departure end of runway, 278' left of centerline, 31' AGL/116' MSL. Trees 253' from departure end of runway, 228' right of centerline, 57' AGL/142' MSL. Obstruction light 400' from departure end of runway, on centerline, 18' AGL/103' MSL. Trees 1336' to 2492' from departure end of runway, 160' left of centerline to 419' right of centerline, 70' AGL/155' MSL. Tower 1.3 NM from departure end of runway, 5034' right of centerline, 684' AGL/750' MSL.

HAWTHORNE, CA

JACK NORTHROP FIELD/HAWTHORNE MUNI

TAKE-OFF MINIMUMS: **Rwy 7,** 300-2 or std. with a min. climb of 363' per NM to 500. **Rwy 25,** 200-1 or std. w/ a min. climb of 289' per NM to 300.

DEPARTURE PROCEDURE: **Rwy 7,** turn right, climb via heading 240°. **Rwy 25,** turn left, climb via heading 210°. **All runways** climb to 3000 via LAX R-170 to LIMBO Int.

NOTE: **Rwy 7,** multiple transmission towers beginning 5428' from departure end of runway, 205' left of centerline, up to 247' AGL/307' MSL. Antenna on building 1.1 NM from departure end of runway, 2020' left of centerline, 244' AGL/305' MSL. Multiple trees, poles, light poles and buildings beginning 130' from departure end of runway, 12' left of centerline, up to 266' AGL/327' MSL. Multiple trees, poles, signs and OL lights beginning 73' from departure end of runway, 90' right of centerline, up to 184' AGL/245' MSL. **Rwy 25,** OL light on tank 4471' from departure end of runway, 1311' left of centerline, 227' MSL. Multiple antennas on buildings, trees and poles 91' from departure end of runway, 64' left of centerline, up to 93' AGL/154' MSL. Multiple trees and poles beginning 309' from departure end of runway, 162' right of centerline, up to 84' AGL/149' MSL.

HEMET, CA

HEMET-RYAN

TAKE-OFF MINIMUMS: **Rwys 4,22,** N/A-restricted to glider operations. **Rwy 5,** std. with a min. climb of 526' per NM to 5200, or 1400-2½ for climb in visual conditions. **Rwy 23,** std. with a min. climb of 414' per NM to 3200, or 1400-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 5,** climbing left turn via HDF VOR R-084 to HDF VOR, thence...or climb in visual conditions to cross Hemet-Ryan Airport westbound at or above 2900, then climb via HDF VOR R-093 to HDF VOR, thence... **Rwy 23,** climbing right turn via HDF VOR R-108 to HDF VOR, thence...or climb in visual conditions to cross Hemet-Ryan Airport westbound at or above 2900, then climb via HDF VOR R-093 to HDF VOR, thence...
....climb in HDF VOR holding pattern, (SE, right turns, 315° inbound), to cross HDF VOR at or above MEA/MCA for direction of flight.

NOTE: **Rwy 5,** road and vehicle 200' from departure end of runway, on centerline, 15' AGL/1534' MSL. **Rwy 23,** road and vehicle 394' from departure end of runway, 545' left of centerline, 15' AGL/1524' MSL. Tree 1.4 NM from departure end of runway, 2613' right of centerline, 100' AGL/1979' MSL.

IMPERIAL, CA

IMPERIAL COUNTY (IPL)
AMDT 2A 09239 (FAA)

TAKE-OFF MINIMUMS: **Rwy 14,** 400-2¼ or std. w/ min. climb of 220' per NM to 400, or alternatively, with standadard take-off minimums and a normal 200' per NM climb gradient, take-off must occur no later than 1800' prior to DER.

DEPARTURE PROCEDURE: **Rwys 8, 32,** turn right. **Rwy 14,** climb runway heading. **Rwy 26,** turn left. **All aircraft** climb direct IPL VORTAC.

NOTE: **Rwy 8,** multiple VASI beginning 687' from DER, 31' right of centerline, up to 5' AGL/-52' MSL. Antenna on building 1033' from DER, 703' left of centerline, 45' AGL/ -12' MSL. Light on pole, 1984' from DER, 386' left of centerline, 55 ft AGL/-2' MSL. **Rwy 14,** building 1770' from DER, 38' left of centerline, 45' AGL/-11' MSL. Road 430'from DER, 291' left of centerline, 15' AGL/-41' MSL. Sign 1733'from DER, 35' left of centerline, 45' AGL/-11' MSL. Pole 1457' from DER, 393' right of centerline, 37' AGL/-19' MSL. **Rwy 26,** multiple obstruction lights on poles beginning 1509' from DER, 15' left of centerline, up to 60' AGL/3' MSL. Obstruction light on pole 1511' from DER, 459' right of centerline, 59' AGL/2' MSL. **Rwy 32**, obstruction light on tank, 823' from DER, 574' right of centerline 110' AGL/53' MSL. Numerous tanks beginning 3580' from DER, 296' right of centerline, up to 109' AGL/53' MSL. Tree 373' from DER, 387' right of centerline, 80' AGL/-24' MSL. Multiple lights beginning 243' from DER, 361' right of centerline, up to 28' AGL/-29' MSL. Pole 657' from DER, 370' left of centerline, 27' AGL/-30' MSL. Road 191' from DER, 237' left of centerline, 13' AGL/-44' MSL.

IMPERIAL BEACH NOLF (REAM FIELD) (KNRS)

IMPERIAL BEACH, CA. 09043

Rwy 8,9,26 departures not authorized.

Rwy 27: Diverse departure not authorized.

Departures authorized for military rotorcraft only. Climb to 2000 via heading 272° to intercept NRS TACAN R-270. Cross NRS 1.5 DME at or above 800. Minimum ATC climb rate of 600'/NM til 800 with take-off occurring NLT 3038' prior to DER or cross DER at or above 320.

INYOKERN, CA

INYOKERN

TAKE-OFF MINIMUMS: **Rwys 2, 10, 15, 28, 33,** NA.

DEPARTURE PROCEDURE: **Rwy 20,** use LAKE HUGHES RNAV DEPARTURE.

LA VERNE, CA

BRACKETT FIELD

TAKE-OFF MINIMUMS: **Rwys 26L,26R,** 300-1.

DEPARTURE PROCEDURE: **Rwys 8L,8R,** climb via heading 079° to 1500, then climbing right turn via heading 195° and POM R-164 to PRADO Int. **Rwys 26L, 26R,** climb via heading 259° to 1400, then climbing left turn via heading 130° and POM R-164 to PRADO Int.

Aircraft departing PRADO Int heading 141° clockwise 290° climb on course. All others climb in PRADO Int holding pattern (hold north, right turn, 164° inbound) to depart PRADO Int at or above: 291° clockwise 340°, 4500; 341° clockwise 050°, 6800; 051° clockwise 090°, 5200; 091° clockwise 140°, 4200.

NOTE: **Rwy 26L,** multiple trees and antenna beginning 370' from departure end of runway, 269' left of centerline up to 100' AGL/1116' MSL. Multiple trees beginning 896' from departure end of runway, 70' right of centerline, up to 100' AGL/1010' MSL. Multiple buildings and tanks beginning 2732' from departure end of runway, 416' right of centerline, up to 50' AGL/1230' MSL. **Rwy 26R,** hangar 241' from departure end of runway, 326' right of centerline, 35' AGL/994' MSL. Multiple trees beginning 1473' from departure end of runway, 807' left of centerline, up to 100' AGL/1116' MSL. Tank and trees beginning 2510' from departure end of runway, 503' right of centerline, up to 100' AGL/ 1289' MSL.

LANCASTER, CA

GENERAL WILLIAM J. FOX AIRFIELD (WJF)
ORIG-A 09267 (FAA)

DEPARTURE PROCEDURE: Climb southeastbound on R-299 to PMD VORTAC. Depart PMD at published MCA for direction of flight.

NOTE: **Rwy 6,** trees beginning 1170' from DER, 590' right of centerline, up to 44' AGL/2374' MSL.

LOMPOC, CA

LOMPOC

TAKE-OFF MINIMUMS: **Rwy 7,** std. with a min. climb of 425' per NM to 1400, or 1000-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 7,** climbing right turn. For climb in visual conditions: cross Lompoc Airport eastbound at or above 1200 MSL. **Rwy 25,** turn right heading 130°.

All aircraft climb to 6000 via GVO R-278 to GVO VORTAC. Aircraft departing GVO R-120 CW R-020 climb on course, all others climb in GVO holding pattern (NW, right turns, 127° inbound) to depart GVO VORTAC at or above MEA for route of flight.

NOTE: **Rwy 7,** trees 3583' from departure end of runway, 2.3 NM right of centerline, 50' AGL/889' MSL. Trees 1.2 NM from departure end of runway, 2.2 NM right of centerline, 50' AGL/791' MSL. Trees 1.6 NM from departure end of runway, 1.9 NM right of centerline, 50' AGL/743' MSL.

LONG BEACH, CA

LONG BEACH (DAUGHERTY FIELD)

TAKE-OFF MINIMUMS: **Rwy 16L,** 400-1½ or std. w/ min climb of 321' per NM to 500. **Rwy 16R,** 400-1 or std. w/ min. climb of 518' per NM to 500. **Rwy 25L,** std. w/ min. climb of 225' per NM to 2300. **Rwy 25R,** std. w/ min. climb of 223' per NM to 2200. **Rwys 34L,34R,** NA-Environmental and noise abatement.

DEPARTURE PROCEDURE: **Rwys 7L,7R,** climb heading 076° to 800, then climbing right turn direct SLI VORTAC and SLI R-210 to PADDR INT. **Rwy 12,** climb heading 121° to intercept SLI VORTAC R-210 to PADDR INT. **Rwys 16L,16R,** climb heading 166° to 800, then climbing right turn heading 180° and SLI VORTAC R-210 to PADDR INT. **Rwys 25L,25R,** climb heading 256° to 800, then climbing left turn heading 200° and LAX VORTAC R-145 to PADDR INT. **Rwy 30,** climb heading 301° to 800, then climbing left turn heading 200° and LAX VORTAC R-145 to PADDR INT.

NOTE: **Rwy 7L,** sign 287' from DER, 173' left of centerline, 8' AGL/45' MSL. Vehicle on road 320' from DER, 248' left of centerline, 13' AGL/50' MSL. Light 468' from DER, 307' left of centerline, 19' AGL/56' MSL. Tree 1326' from DER, 75' left of centerline, 60' AGL/97' MSL. Trees beginning 579' from DER, 7' right of centerline, up to 71' AGL/108' MSL. Hangar 347' from DER, 416' right of centerline, 13' AGL/50' MSL. **Rwy 7R,** hangar 260' from DER, 498' left of centerline, 31' AGL/64' MSL. Multiple trees beginning 1408' from DER, 1' left of centerline, up to 64' AGL/94' MSL. Light 459' from DER, 581' right of centerline, 14' AGL/44' MSL. Antenna obstruction light 1473' from DER, 822' right of centerline, 88' AGL/115' MSL. **Rwy 12,** multiple trees beginning 1431' from DER, 469' left of centerline, up to 66' AGL/86' MSL. Light 1127' from DER, 606' left of centerline, 36' AGL/56' MSL. Multiple trees beginning 970' from DER, 392' right of centerline, up to 64' AGL/87' MSL. Spire 3095' from DER, 1183' right of centerline, 92' AGL/115' MSL. **Rwy 16L,** terrain beginning 155' from DER, 152' left of centerline, up to 40' MSL. Multiple trees beginning 427' from DER, 136' left of centerline, up to 32' AGL/109' MSL. Multiple lights, buildings and lights on buildings beginning 285' from DER, 256' left of centerline, up to 113' AGL/159' MSL. Multiple flag poles 1165' from DER, 8' left of centerline, up to 60' AGL/116' MSL. Rising terrain beginning 156' from DER, 100' right of centerline 40' MSL. Multiple trees beginning 296' from DER, 149' right of centerline, up to 38' AGL/218' MSL. Multiple buildings beginning 2057' from DER, 253' right of centerline, up to 30' AGL/91' MSL. **Rwy 16R,** rising terrain beginning 29' from DER on centerline, up to 309' MSL. Multiple trees beginning 835' from DER, 46' left of centerline, up to 112' AGL/156' MSL. Sign 1453' from DER, 139' left of centerline, 50' AGL/94' MSL. Pole 3034' from DER, 302' left of centerline, 91' AGL/135' MSL. Light on tank 4079' from DER, 114' left of centerline, 108' AGL/152' MSL. Multiple tower antennas beginning 8017' from DER, 1913' left of centerline, up to 291' AGL/335' MSL. Antenna on hangar 352' from DER, 399' right of centerline, 38' AGL/82' MSL. Multiple trees beginning 787' from DER, 319' right of centerline, 32' AGL/293' MSL. Multiple poles beginning 2028' from DER, 295' right of centerline, up to 241' AGL/248' MSL. Chimney on building, 4661' from DER, 1553' right of centerline, 33' AGL/353' MSL.

LONG BEACH (DAUGHERTY FIELD) (CON'T)

Rwy 25L, multiple trees beginning 2407' from DER, 111' left of centerline, up to 38' AGL/117' MSL. Obstruction light on tower 2493' from DER, 503' left of centerline, 69' AGL/152' MSL. Rising terrain beginning 110' on centerline, up to 66' MSL. Obstruction light rod on hangar, 1149' from DER, 793' right of centerline, 109' AGL/169' MSL. Antenna 3821' from DER, 439' right of centerline, 66' AGL/155' MSL. **Rwy 25R,** Ford sign beginning 551' from DER, 27' right of centerline, up to 100' AGL/159' MSL. Railroad beginning 202' from DER, 3' left of centerline, 66' AGL/155' MSL. Multiple lights and light poles beginning 321'from DER, 111' left of centerline, up to 32' AGL/92' MSL. Sign 1142' from DER, 33' left of centerline, 35' AGL/104' MSL. Multiple trees beginning 1142' from DER, 9' left of centerline, up to 67' AGL/146' MSL. Multiple obstruction lights beginning 67' from DER, 59' right of centerline, up to 202' AGL/260' MSL. Multiple trees beginning 1246' from DER, 1' right of centerline, up to 87' AGL/145' MSL. **Rwy 30,** railroad beginning 647' from DER, on centerline, up to 27' AGL/91' MSL. Multiple antennas, rods, vents and lights on buildings beginning 356' from DER, 289' left of centerline, up to 27' AGL/87' MSL. Multiple poles beginning 2061' from DER, 312' left of centerline, up to 51' AGL/124' MSL. Railroad beginning 207' from DER, 485' right of centerline, up to 25' AGL/81' MSL. Multiple obstruction lights and poles beginning 632' from DER, 240' right of centerline, up to 66' AGL/142' MSL. Multiple trees beginning 1701' from DER, 136' right of centerline, up to 73' AGL/146' MSL. Building 2617' from DER, 802' right of centerline, 63' AGL/136' MSL.

LOS ALAMITOS AAF (KSLI)

LOS ALAMITOS, CA

. . . . . Rwy 22L/R, 300-1*

* Or standard with minimum climb of 230/NM to 400. Rwy 4L/R climbing right turn; Rwy 22L/R climbing left turn. All aircraft climb direct SLI VORTAC. Aircraft departing SLI VORTAC R-040 CW 345 climb on course. All others continue climb via the SLI R-171 southbound then climbing right turn direct SLI VORTAC to cross at or above 4600'.

LOS ANGELES, CA

LOS ANGELES INTL (LAX)

AMDT 12 08325 (FAA)

TAKE-OFF MINIMUMS: **Rwy 6R,** 200-1¼ or std. with a min. climb of 275' per NM to 400.

DEPARTURE PROCEDURE: **Rwys 6L/R, 7L/R,** climb to 2000 heading 070°, then climbing right turn, thence... **Rwys 24L/R,** climb to 2000 heading 250°, then climbing left turn, thence... **Rwys 25L/R,** turbojet climb to 2000 heading 250°, then climbing left turn, thence...non-turbojet climb to 2000 heading 250°, at the SMO R-154 turn left heading 200°, thence...

...climb direct SLI VORTAC, then climb on course.

NOTE: **Rwy 6L,** buildings and signs beginning 1693' from departure end of runway, 339' left of centerline, up to 50' AGL/201' MSL. **Rwy 6R,** antenna on building 560' from departure end of runway, 479' right of centerline, 18' AGL/127' MSL, obstruction light on building 5550' from departure end of runway, 1791' right of centerline, 202' AGL/306' MSL, obstruction light on sign and sign beginning 1866' from departure end of runway, 920' left of centerline, up to 49' AGL/161' MSL. **Rwy 7L,** obstruction light on blast fence 168' from departure end of runway, 33' left of centerline, 14' AGL/106' MSL, poles beginning 1290' from departure end of runway, 505' left of centerline, up to 55' AGL/147' MSL, antenna on building 1576' from departure end of runway, 315' left of centerline, 55' AGL/147' MSL, sign and railroad beginning 351' from departure end of runway, 10' left of centerline, up to 29' AGL/124' MSL, railroad 275' from departure end of runway, 500' right of centerline, 23' AGL/115' MSL, approach light and obstruction light on LOC beginning 979' from departure end of runway, on runway centerline, up to 27' AGL/119' MSL. **Rwy 7R,** trees and building beginning 790' from departure end of runway, 606' right of centerline, up to 58' AGL/157' MSL. **Rwy 24L,** bush 956' from departure end of runway, 600' left of centerline, 40' AGL/148' MSL. Light poles beginning 273' from departure end of runway, 425' left of centerline, up to 10' AGL/120' MSL, antenna on pole 1357' from departure end of runway, 286' right of centerline, 36' AGL/144' MSL, light poles and bushes beginning 239' from departure end of runway, 321' right of centerline, up to 8' AGL/116' MSL. **Rwy 24R,** obstruction light on glideslope 212' from departure end of runway, 399' left of centerline, 39' AGL/151' MSL. **Rwy 25L,** tree and pole beginning 2366' from departure end of runway, 764' left of centerline, up to 80' AGL/197' MSL, transmission towers beginning 2800' from departure end of runway, 926' left of centerline, up to 71' AGL/192' MSL, bush 133' from departure end of runway, 397' left of centerline, 4' AGL/123' MSL.

WHITEMAN

TAKE-OFF MINIMUMS: **Rwys 12, 30,** 2900-2 or std. with a min. climb of 350' per NM to 4300.

DEPARTURE PROCEDURE: **Rwy 12,** climbing right turn direct VNY VOR/DME. **Rwy 30,** climbing left turn heading 260°. **All aircraft** climb to 4500 via VNY R-325, then climbing left turn direct VNY VOR/DME.

MARCH ARB (KRIV)

RIVERSIDE, CA . . . . . AMDT 2, 09323

Rwy 32, 1200-3*

* Or standard with a minimum climb rate of 240 ft/NM to 3100'.

Rwy 14,

Diverse Departure:

Rwy 14 appropriate departure procedure Standard, proceed direct HDF VOR, then right turn to sector diverse departure between 155° clockwise to 181° only. Max airspeed 250 KIAS or

VCOA route SKYES intersection: 2300-3 for Climb in Visual Conditions within 6.5 NM of March ARB, cross March ARB at or above 3700' MSL, then climb and maintain 6000 direct HDF VOR, then via HDF R-153 to HDF R-153/PDZ R-130, direct SKYES INT. Do not exceed 250 KIAS until passing SKYES. Aircraft shall advise ATC prior to executing VCOA.

Rwy 32,

Diverse Departure:

Rwy 32 appropriate departure procedure. Turn left to sector diverse departure between 150° to 135° counter-clockwise only. Maximum 250 KIAS or

VCOA route SKYES intersection: 2300-3 for Climb in Visual Conditions within 6.5 NM of March ARB, cross March ARB at or above 3700' MSL, then climb and maintain 6000 direct HDF VOR, then via HDF R-153 to HDF R-153/PDZ R-130, direct SKYES INT. Do not exceed 250 KIAS until passing SKYES. Aircraft shall advise ATC prior to executing VCOA.

TAKE-OFF OBSTACLES: **Rwy 14,** Tree 150' AGL 1630' MSL, 2248' from DER, 1000' right of centerline. Tree 150' AGL/1630' MSL, 1920' from DER, 1000' right of centerline. Tree 150' AGL/ 1630' MSL, 1789' from DER, 1000' right of centerline. Tree 150' AGL/1622' MSL, 2278' from DER, 1002' left of centerline. Aircraft 65' AGL/1550' MSL, 28' inward of DER, 542' left of centerline. Aircraft 30' AGL/1516' MSL, 31' inward of DER, 298' left of centerline. Use caution when departing Rwy 14, rapid rising terrain within 3.5 NM SE of March ARB. **Rwy 32,** Aircraft 65' AGL/1600' MSL, 30' from DER, 526' right of centerline. Aircraft 30' AGL/1565' MSL, 5' from DER, 282' right of centerline.

MIRAMAR MCAS

(MITSCHER FLD) (KNKX), CA. 09351

Rwy 6L/R 340° through 150° CW-Civil, standard with minimum climb of 300'/NM to 7600; Military, standard with minimum climb of 280'/NM to 7600. **Rwy 24L/R** 340° through 100° CW-Civil standard with minimum climb of 290'/NM to 7600; Military, standard with minimum climb of 270'/NM to 7600.

TAKE-OFF OBSTACLES: **Rwy 6L,** Bldg 539' MSL, 2381' from DER, 1084' left of centerline. **Rwy 24R,** Pylon 473' MSL, 1879' from DER, 673' left of centerline.

MOJAVE, CA

MOJAVE (MHV)

AMDT 1 08157 (FAA)

TAKE-OFF MINIMUMS: **Rwys 4,8,12,** NA-restricted airspace. **Rwys 22, 26,** std. with a min. climb of 415' per NM to 6800 or 4200-3 for climb in visual conditions. **Rwy 30,** std. with a min. climb of 485' per NM to 6300 or 4200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 22,** climb to 8000 via heading 218° and LHS R-023 to LHS VORTAC or for climb in visual conditions: cross Mojave Airport southwest bound at or above 6800, then climb to 8000 via LHS R-023 to LHS VORTAC. **Rwys 26, 30,** climbing left turn to 8000 via heading 190° and LHS R-023 to LHS VORTAC or for climb in visual conditions: cross Mojave Airport southwest bound at or above 6800, then climb to 8000 via LHS R-023 to LHS VORTAC.

NOTE: **Rwy 30,** vehicle on road 3181' from departure end of runway, 22' right of centerline, 17' AGL/2896' MSL. Train 1441' from departure end of runway, 351' right of centerline, 23' AGL/2882' MSL.

MURRIETA/TEMECULA, CA

FRENCH VALLEY

TAKE-OFF MINIMUMS: **Rwy 18,** NA. **Rwy 36,** 700-2 or std. with a min. climb of 340' per NM to 2200.

DEPARTURE PROCEDURE: **Rwy 36,** climb runway heading to 2200, then climbing left turn via HDF R-145 to HDF VOR. Aircraft departing HDF VOR 065° CW 352° climb on course. Aircraft departing northeastbound, climb in HDF holding pattern, (SE, right turns, 315° inbound) to depart HDF VOR at or above: 353° CW 054°, 6800; 055° CW 064°, 5800; before proceeding on course.

NEEDLES, CA

NEEDLES

DEPARTURE PROCEDURE: **Rwys 2, 29,** turn right. **Rwy 20,** turn left. **All aircraft** climb direct EED VORTAC, then continue climb on curse. Departures on V12, J6, and J8 cross EED VORTAC at or above 2600.

NORTH ISLAND NAS (HALSEY FIELD) (KNZY)

SAN DIEGO,CA. 09127

Rwy 11, diverse departures authorized 129° CW 182°. Make immediate right turn to assigned heading within 1.4 DME of NZY TACAN to avoid over flying the City of Coronado.

Rwy 18, diverse departures authorized 129° CW 175°.

Rwy 29, diverse departures not authorized. Use published DP or 800-2¼ for climb in visual conditions via immediate climbing left turn to cross North Island airport at or above 800' MSL, during visual climb do not overfly Point Loma and remain south of Rwy 11-29, then climb to 2000 via heading 175°, expect radar vectors to join assigned route. Cross DER at or above 35' AGL (54' MSL).

Rwy 36, departure not authorized.

TAKE-OFF OBSTACLES:

Rwy 11, Trees 52' AGL/78' MSL, 108' from DER, 336' right of centerline; Trees 30' AGL/54' MSL, 994' from DER, 733' left of centerline.

Rwy 29, Shipping Channel accommodating vessels up to 200' AGL (206' MSL with tidal range), starting 2577' from DER on centerline. Twin Towers 145' AGL/534' MSL, 1.4 NM from DER, 2645' left of centerline; Tower 479' MSL, 1.5 NM from DER, 1969' left of centerline; Tower 100' AGL/ 455' MSL, 1.5 NM from DER, 2054' left of centerline; Tower 120' AGL/544' MSL, 1139' from DER, 2.1 NM left of centerline.

OCEANSIDE, CA

OCEANSIDE MUNI

TAKE-OFF MINIMUMS: **Rwy 6,** 400-1 or std. with a min. climb of 320' per NM to 500. **Rwy 24,** 300-1 or std. with a min. climb of 670' per NM to 300.

DEPARTURE PROCEDURE: **Rwy 6,** climbing right turn. **Rwy 24,** climbing left turn. **All aircraft** climb via heading 235° to 1500, then climbing right turn direct OCN VORTAC.

ONTARIO, CA

ONTARIO INTL

TAKE-OFF MINIMUMS: **Rwys 8L,8R,** CAT C, D 1000-2 or std. with a min. climb of 220' per NM to 2200.

DEPARTURE PROCEDURE: **Rwys 8L,8R,** climbing right turn. **Rwys 26L,26R,** climbing left turn. **All aircraft** climb direct PDZ VORTAC. Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ holding pattern (NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-281 CW R-090, 6700; R-141 CW R-230, 4000.

OXNARD, CA

OXNARD

TAKE-OFF MINIMUMS: **Rwy 7,** 2100-5 or std. with a min. climb of 290' per NM to 2600.

DEPARTURE PROCEDURE: **Rwy 7,** climbing left turn. **Rwy 25,** climb runway heading. **All aircraft** continue climb to 6000 (or assigned altitude) via CMA R-249 to SQUID Int. Aircraft departing SQUID Int 040° CW 300° climb on course. All others continue climb in SQUID holding pattern (Hold W, right turns, 069° inbound) to cross SQUID INT at or above 2300.

NOTE: **Rwy 7,** 59' AGL tree 527' from departure end of runway, 501' left of centerline.

PALM SPRINGS, CA

BERMUDA DUNES

TAKE-OFF MINIMUMS: **Rwy 28,** CAT A,B 1200-2 or std. with a min. climb of 450' per NM to 1400. CAT C,D 2100-2 or std. with a min. climb of 490' per NM to 3400.

DEPARTURE PROCEDURE: **Rwy 10,** climbing right turn heading 150°. **Rwy 28,** climbing left turn heading 090°. **All aircraft** continue climb via TRM R-304 to TRM VORTAC. Aircraft departing TRM R-095 CW R-165 climb on course. All others continue climb in TRM holding pattern (E, right turns, 289° inbound) to cross TRM VORTAC at or above: R-166 CW 290°, 6500; 291° CW R-310, 4900; R-311 CW 094°, 3200.

JACQUELINE COCHRAN RGNL

TAKE-OFF MINIMUMS: **Rwy 30,** CAT C,D 3400-2 or std. with a min. climb of 410' per NM to 3700. **Rwy 35,** CAT A,B 400-2 or std. with a min. climb of 210' per NM to 400. CAT C,D 3400-2 or std. with a min. climb of 410' per NM to 3700.

DEPARTURE PROCEDURE: **Rwys 12,17,** climbing left turn. **Rwys 30, 35,** climbing right turn heading 150°. Aircraft departing TRM R-101 CW R-139, climb on course. All others continue climb east- bound via the TRM R-109 then climbing right turn to cross TRM VORTAC at or above: R-304 CW R-100, 4000; R-140 CW R-199, 4700; R-200 CW R-303, 6600.

PALM SPRINGS, CA (CON'T)

PALM SPRINGS INTL (PSP)

AMDT 5 08101 (FAA)

TAKE-OFF MINIMUMS: **Rwy 13L,** minimum climb of 440' per NM to 2300' or 5900-3 for climb in visual conditions. **Rwy 13R,** minimum climb of 422' per NM to 2300' or 5900-3 for climb in visual conditions. **Rwy 31L,** minimum climb of 386' per NM to 4500' or 5900-3 for climb in visual conditions. **Rwy 31R,** minimum climb of 405' per NM to 4500' or 5900-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 13L/R,** climbing left turn heading 090° to intercept TRM R-304 to TRM VORTAC or for climb in visual conditions cross Palm Springs Intl airport at or above 6300 then direct PSP VORTAC thence ... **Rwy's 31L/R,** climbing right turn direct PSP VORTAC thence ..., or for climb in visual conditions cross Palm Springs Intl airport at or above 6300 then direct PSP VORTAC thence ...

... via PSP R-124 and TRM R-304 to TRM VORTAC. **All Rwys** if not at MEA/MCA at TRM VORTAC, climb in TRM holding pattern (hold E, right turns, 289° inbound) until reaching MEA/MCA for assigned route of flight.

NOTE: **Rwy 13L,** trees beginning 299' from departure end of runway, 530' left of centerline, up to 66' AGL/465' MSL. HGR 935' from departure end of runway, 552' left of centerline, 31' AGL/440' MSL. **Rwy 13R,** trees beginning 1170' from departure end of runway, 239' right of centerline, up to 100' AGL/599' MSL. Poles beginning 815' from departure end of runway, 209' right of centerline, up to 44' AGL/433' MSL. Light 843' from departure end of runway, 441' right of centerline,38' AGL/427' MSL. Antenna 1642' from departure end of runway, 26' right of centerline, 53' AGL/442' MSL. **Rwy 31L,** poles beginning 1641' from departure end of runway, 125' right of centerline, up to 31' AGL/550' MSL. Towers beginning 2418' from departure end of runway, 402' left of centerline, up to 59' AGL/560' MSL. Tree 3016' from departure end of runway, 66' right of centerline, 43' AGL/562' MSL. **Rwy 31R,** multiple trees and bushes beginning 305' from departure end of runway, 233' right of centerline, up to 48' AGL/507' MSL. Vent on building 919' from departure end of runway, 399' right of centerline, 15' AGL/474' MSL.

PALMDALE, CA

PALMDALE RGNL/USAF PLANT 42

TAKE-OFF MINIMUMS: **Rwy 22,** 1000-1 or std. with a min. climb of 260' per NM to 4200.

DEPARTURE PROCEDURE: **Rwys 4, 7,** turn left. **Rwys 22, 25,** turn right. Eastbound V12, J6 climb on course. All others climb on R-298 to FISCH Int. (northwestbound climb in holding pattern SE, left turns, 298° inbound. Depart at 8100), continue climb direct PMD VORTAC to depart at or above published MCA.

PASO ROBLES, CA

PASO ROBLES MUNI

DEPARTURE PROCEDURE: All departures maintain 250 kts or less until inbound to PRB. **Rwy 1,** climb to 3000 via heading 280° to intercept PRB R-326 outbound. V248 northbound climb on course. All others climbing right turn to 4500 direct PRB. **Rwy 13,** climb to 3000 via heading 160° to intercept PRB R-133 outbound. V25 southbound continue climb on course. All others climbing right turn to 4500 direct PRB. **Rwy 19,** climb to 3000 via heading 150° to intercept PRB R-179 outbound. V113 southbound continue climb on course. All others climbing left turn to 4500 direct PRB. **Rwy 31,** climb to 3000 via heading 340° to intercept PRB R-326 outbound. V248 northbound climb on course. All others climbing right turn to 4500 direct PRB.

POINT MUGU NAS (NAVAL BASE VENTURA CO) (KNTD)

OXNARD, CA 09267

DEPARTURE PROCEDURE:

Rwy 3, Diverse departures authorized 210° to 250° CW. Right turns on departure not authorized. Turn left to assigned heading within 3 DME of NTD TACAN. Do not exceed 310 KIAS until established on assigned heading.

Rwy 9, Diverse departures not authorized.

Rwy 21, Diverse departures authorized 150° to 250° CW.

Rwy 27, Diverse departures authorized 150° to 250° CW. Right turns on departure not authorized. Turn left to assigned heading. Do not exceed 310 KIAS until established on assigned heading.

CAUTION: Mountainous terrain NW thru SE.

TAKE-OFF OBSTACLES: **Rwy 3,** Tower 90' MSL, 3005' from DER, 1238' left of centerline; Trees 90' MSL, 2920' from DER, 1199' left of centerline.

RAMONA, CA

RAMONA (RNM)

AMDT 3 09183 (FAA)

TAKE-OFF MINIMUMS: **Rwy 9,** std. w/ min. climb of 500' per NM to 4000, or 3800-3 for climb in visual conditions. **Rwy 27,** std. w/ min. climb of 332' per NM to 2600, or 3800-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 9,** climb via heading 088° to 4000, then climbing left turn via heading 330° and JLI VORTAC R-263/OCN VORTAC R-083 to ROBNN INT before proceeding on course, or for climb in visual conditions, cross Ramona airport at or above 5000 before proceeding on course. **Rwy 27,** climb via heading 268° to 2600, then climbing right turn via PGY VORTAC R-336 to ROBNN INT before proceeding on course, or for climb in visual conditions, cross Ramona airport at or above 5000 before proceeding on course.

NOTE: **Rwy 9,** sign 23' from DER, 178' left of centerline, 9' AGL/1399' MSL. Tree 94' from DER, 343' right of centerline, 20' AGL/1403' MSL. Trees beginning 2468' from DER, 180' right of centerline, up to 100' AGL/1539' MSL. Trees beginning 2637' from DER, 305' left of centerline, up to100' AGL/1487' MSL. **Rwy 27,** tree 657' from DER, 12' left of centerline, 100' AGL/1499' MSL. Trees 1.85 NM from DER, 92' left of centerline, up to 100' AGL/1719' MSL.

REDLANDS, CA

REDLANDS MUNI

TAKE-OFF MINIMUMS: **Rwy 8,** NA. **Rwy 26,** 1700-2 or std. with a min. climb of 300' per NM to 4000.

DEPARTURE PROCEDURE: Climbing left turn direct PDZ VORTAC. Aircraft departing PDZ VORTAC R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue in PDZ VORTAC holding pattern (hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above, R-281 CW R-090, 7700; R-141 CW R-230, 4900.

RIALTO, CA

RIALTO MUNI-MIRO FIELD

TAKE-OFF MINIMUMS: **Rwys 17, 35,** NA.

DEPARTURE PROCEDURE: **Rwy 6,** climbing right turn. **Rwy 24,** climbing left turn. **All aircraft** climb via PDZ R-012 to PDZ VORTAC. Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ holding pattern (NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-281 CW R-090, 6700; R-141 CW R-230, 4000.

RIVERSIDE, CA

RIVERSIDE MUNI

TAKE-OFF MINIMUMS: **Rwy 9,** CAT A,B 1200-2 or std. with a min. climb of 210' per NM to 2300. CAT C,D 2100-2 or std. with a min. climb of 240' per NM to 3500. **Rwy 16,** NA. **Rwy 27,** CAT C,D 2400-2 or std. with a min. climb of 230' per NM to 3800. **Rwy 34,** CAT A,B 700-2 or std. with a min. climb of 400' per NM to 1600. CAT C,D 1600-2 or std. with a min. climb of 400' per NM to 2600.

DEPARTURE PROCEDURE: **Rwy 9,** climbing right turn. **Rwy 34,** climbing left turn. **Rwy 27,** climb heading 280° to 2000, then climbing left turn. **All aircraft** climb direct PDZ VORTAC. Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ holding pattern (NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-281 CW R-090, 6700; R-141 CW R-230, 4000; or Airway MEA.

SAN BERNARDINO, CA

SAN BERNARDINO INTL

TAKE-OFF MINIMUMS: **Rwy 6,** CAT A,B 2100-2 or std. with a min. climb of 340' per NM to 3700. CAT C,D 3100-2 or std. with a min. climb of 480' per NM to 4600.

DEPARTURE PROCEDURE: **Rwy 6,** climbing right turn. **Rwy 24,** climbing left turn. **All aircraft** climb direct PDZ VORTAC. Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ holding pattern (Hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-281 CW R-090, 7700; R-141 CW R-230, 4900.

SAN CLEMENTE ISLAND NALF (FREDERICKSHERMAN FLD)(KNUC)

SAN CLEMENTE ISLAND, CA 09071

Rwy 5: Diverse departures authorized 090° to 233° CCW.

Rwy 23: Diverse departures authorized 160° to 053° CW.

TAKEOFF OBSTACLES: **Rwy 5,** Pylon 198' MSL, 44' from DER, 273' right of centerline.

SAN DIEGO, CA

BROWN FIELD MUNI (SDM)

AMDT 3A 08297 (FAA)

TAKE-OFF MINIMUMS: **Rwy 8L,** Cat. A,B 1900-2 or std. w/ min. climb of 460' per NM to 2600. Cat. C,D 3100-3 or std. w/ min. climb of 520' per NM to 3900.
Rwys 8R,26L, NA - ATC.

DEPARTURE PROCEDURE: **Rwy 8L,** climbing left turn. **Rwy 26R,** climbing right turn. **All aircraft,** climb heading 280° to intercept MZB R-160 northwestbound to MZB VORTAC.

NOTE: **Rwy 26R,** trees 2184' from departure end of runway, 778' left of centerline, 60' AGL/561' MSL.

MONTGOMERY FIELD

TAKE-OFF MINIMUMS: **Rwy 5,** 1500-2 or std. with a min. climb of 290' per NM to 1700.

DEPARTURE PROCEDURE: **Rwys 5, 10L/R,** climbing right turn. **Rwys 28L/R,** climbing left turn. **All aircraft** climb direct to MZB VORTAC. Aircraft departing MZB R-090 CW R-360 climb on course. All others climb in MZB holding pattern (W, right turns, 075° inbound) to cross MZB VORTAC at or above 1800.

SAN DIEGO INTL

TAKE-OFF MINIMUMS: **Rwy 9,** CAT A,B 400-1 or 300-1 with a min. climb of 610' per NM to 600. CAT C,D 300-1 with a min. climb of 610' per NM to 2300. **Rwy 27,** 300-1½ or std. with a min. climb of 317' per NM to 400.

DEPARTURE PROCEDURE: **Rwy 9,** climb runway heading to 600, then climbing left turn direct MZB VORTAC. **Rwy 27,** climb runway heading to 900, then climbing right turn direct MZB VORTAC. Aircraft departing MZB VORTAC R-180 CW R-360 climb on course. All others climb in MZB VORTAC holding pattern (W, right turns, 075° inbound) to cross MZB VORTAC at or above 2000.

NOTE: **Rwy 9,** trees 792' from departure end of runway, 142' left of centerline, 60' AGL/99' MSL. Antenna 740' from departure end of runway, 302' right of centerline, 62' AGL/82' MSL. Antenna 1946' from departure end of runway, 969' left of centerline, 126' AGL/192' MSL. Trees 1377' from departure end of runway, 285' left of centerline, 80' AGL/135' MSL. Trees 4625' from departure end of runway, 1414' left of centerline, 250' AGL/385' MSL. **Rwy 27,** trees 1 mile from departure end of runway, 685' right of centerline, 220' AGL/253' MSL. Trees 3118' from departure end of runway, 846' right of centerline, 120' AGL/149' MSL. Flagpole 2511' from departure end of runway, 700' left of centerline, 90' AGL/116' MSL.

SAN DIEGO (EL CAJON), CA

GILLESPIE FIELD

TAKE-OFF MINIMUMS: **Rwys 9L, 9R,** 900-2 or std. with a min. climb of 1000' per NM to 1600. **Rwy 17,** 500-1 or std. with a min. climb of 260' per NM to 800. **Rwys 27L, 27R,** CAT A,B 500-1 or std. with a min. climb of 370' per NM to 900. CAT C,D 2500-2 or std. with a min. climb of 370' per NM to 2500. **Rwy 35,** 1300-2 or std. with a min. climb of 460' per NM to 1800.

DEPARTURE PROCEDURE: **Rwy 9L, 9R, 27L, 27R,** climbing right turn. **Rwys 17, 35,** climbing left turn. **All aircraft** climb via heading 165° and MZB R-076 to MZB VORTAC.

SAN LUIS OBISPO, CA

SAN LUIS COUNTY RGNL

TAKE-OFF MINIMUMS: **Rwys 7, 25,** NA. **Rwy 11,** 1800-2 or std. with a min. climb of 320' per NM to 2300. **Rwy 29,** 1200-2 or std. with a min. climb of 390' per NM to 1700.

DEPARTURE PROCEDURE: **Rwy 11,** climb runway heading to 900, then climbing right turn direct MQO VORTAC. **Rwy 29,** climb via runway heading and MQO R-050 to MQO VORTAC. **All aircraft** departing on MQO R-130 CW R-320 climb on course. All others continue climbing in MQO holding pattern (SE, left turns, 306° inbound) to cross MQO VORTAC at or above 4000.

SAN NICOLAS ISLAND NOLF (NSI)

SAN NICOLAS ISLAND, CA

Rwy 12: Diverse departures authorized 300° to 120° CW.

Rwy 30: Diverse departures not authorized. Rwy 30 climb heading 300° to 1300', then turn right to assigned heading.

Rwy 12-30 Obstacle identification surface begins 10 ft above departure end of runway.

TKOFF OBSTACLES: Rwy 30: 1076' MSL (589' AGL) Tower, 2805' past DER, 1882' left of centerline.

SANTA ANA, CA

JOHN WAYNE AIRPORT-ORANGE COUNTY (SNA)

AMDT 5 09239 (FAA)

DEPARTURE PROCEDURE: **Rwys 1L, 1R,** climbing left turn direct SLI VORTAC. **Rwys 19L, 19R,** climbing right turn direct SLI VORTAC. **All aircraft** climb in SLI holding pattern (hold South, left turns, 351° inbound) to cross SLI VORTAC at or above MEA for direction of flight before proceeding on course.

NOTE: **Rwy 1L,** multiple trees beginning 466' from DER, 553' left of centerline, up to 85' AGL/127' MSL. Light pole 94' from DER, 490' left of centerline, 21' AGL/63' MSL. Obstruction light on DME 497' from DER, 625' right of centerline, 13' AGL/55' MSL. **Rwy 1R,** obstruction light on DME 497' from DER, 125' right of centerline, 13' AGL/55' MSL. Tree 1745' from DER, 309' right of centerline, 51' AGL/85' MSL. Light pole 1104' from DER, 307' right of centerline, 34' AGL/68' MSL. **Rwy 19R,** WSK on HGR 536' from DER, 605' left of centerline, 44' AGL/92' MSL. Multiple trees beginning 289' from DER, 500' right of centerline, up to 52' AGL/108' MSL. Light poles beginning 204' from DER, 490' right of centerline, up to 35' AGL/85' MSL. Tree 1574' from DER, 765' left of centerline, 59' AGL/113' MSL.

SANTA BARBARA, CA

SANTA BARBARA MUNI

TAKE-OFF MINIMUMS: **Rwy 7,** std. with a min. climb of 280' per NM to 1200, or 1900-2½ for climb in visual conditions. **Rwy 33L, 33R,** NA-ATC.

DEPARTURE PROCEDURE: **Rwy 7,** climbing right turn via heading 170°, thence..., or for climb in visual conditions: cross Santa Barbara Muni Airport southbound at or above 1900, thence...**Rwys 15L, 15R,** climb via heading 152°, thence...**Rwy 25,** climbing left turn via heading 155°, thence...

...then via RZS R-185 to GOLET INT, climb in GOLET INT holding pattern (SE, right turns, 307° inbound), to cross GOLET INT at or above MEA for route of flight, before proceeding on course.

NOTE: **Rwy 7,** obstruction light on DME antenna, road and numerous trees beginning 350' from departure end of runway, 101' right of centerline, up to 55' AGL/74' MSL. Antennas, poles, tower, and numerous trees beginning 194' from departure end of runway, 11' left of centerline, up to 79' AGL/98' MSL. **Rwy 15L,** numerous trees beginning 1242' from departure end of runway, 119' right of centerline, up to 100' AGL/159' MSL. **Rwy 15R,** sign and numerous trees beginning 29' from departure end of runway, 94' right of centerline, up to 100' AGL/159' MSL. Tree 1325' from departure end of runway, 243' left of centerline, 19' AGL/59' MSL. **Rwy 25,** trees beginning 1999' from departure end of runway, 793' right of centerline, up to 67' AGL/86' MSL.

SANTA MARIA, CA

SANTA MARIA PUBLIC/ CAPTAIN G. ALLAN HANCOCK FIELD

TAKE-OFF MINIMUMS: **Rwy 12,** CAT C,D 3400-2 or std. with a min. climb of 310' per NM to 3600. **Rwy 20,** CAT A,B 1300-2 or std. with a min. climb of 250' per NM to 1500; CAT C,D 1600-2 or std. with a min. climb of 250' per NM to 2100.

DEPARTURE PROCEDURE: **Rwys 2, 12,** climbing left turn. **Rwy 20,** climbing right turn. **Rwy 30,** climb via runway heading. **All aircraft** climb direct GLJ VOR. Continue climb via GLJ R-300 northwestbound to 2000, then continue climbing direct MQO VORTAC.

NOTE: 400' - 550' trees beginning ¾ mile from departure end of Rwy 12.

SANTA MONICA, CA

SANTA MONICA MUNI

TAKE-OFF MINIMUMS: **Rwy 3,** std. w/ min. climb of 325' per NM to 1100, or 1200-3 for climb in visual conditions. **Rwy 21,** std. w/ min. climb of 215' per NM to 4000, or 1200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 3,** climbing right turn to 5000 via SMO R-210 and LAX R-276 to SADDE INT, or for climb in visual conditions: cross SMO VOR/DME at or above 1200 then continue climb to 5000 via SMO R-210 and LAX R-276 to SADDE INT. **Rwy 21,** climb to 5000 via SMO R-210 and LAX R-276 to SADDE INT, or for climb in visual conditions: cross SMO VOR/DME at or above 1200, then climb to 5000 via SMO R-210 and LAX R-276 to SADDE INT.

NOTE: **Rwy 3,** multiple signs and trees beginning 19' from departure end of runway, 300' right of centerline, up to 36' AGL/211' MSL, tower 5488' from departure end of run way, 1902' right of centerline, 150' AGL/325' MSL, light standard 19' from departure end of runway, 176' right of centerline, 6' AGL/181' MSL, multiple trees beginning 325' from departure end of runway, 227' left of centerline, up to 34' AGL/209' MSL, sign 56' from departure end of runway, 185' left of centerline, 6' AGL/181' MSL. **Rwy 21,** multiple trees and poles beginning 140' from departure end of runway, 247' right of centerline, up to 81' AGL/196' MSL, antenna on building 280' from departure end of runway, 486' right of centerline, 35' AGL/150' MSL, VOR 101' from departure end of runway, 255' left of centerline, 7' AGL/122' MSL.

SANTA YNEZ, CA

SANTA YNEZ

TAKE-OFF MINIMUMS: **Rwy 8,** CAT C,D 1100-2 or std. with a min. climb of 280' per NM to 2000.

DEPARTURE PROCEDURE: **Rwy 8,** turn left, climb to 6000 heading 260° and V27 to ORCUT Int. **Rwy 26,** climb to 6000 via RZS R-275 and V27 to ORCUT Int.

SHAFTER, CA

SHAFTER-MINTER FIELD

DEPARTURE PROCEDURE: **Rwys 12, 17,** turn right. **Rwys 30,35,** turn left. Climb westbound to 4000 via V248. Westbound aircraft continue at 4000 on course. Eastbound aircraft turn right at 4000 direct EHF VORTAC.

TORRANCE, CA

ZAMPERINI FIELD

TAKE-OFF MINIMUMS: **Rwys 11L, 11R,** 400-1 or std. with a min. climb of 325' per NM to 500.

DEPARTURE PROCEDURE: **Rwys 29L, 29R,** climb runway heading. **Rwys 11L, 11R,** climbing left turn to heading 290°. Both departures climb to 3000, intercept LAX R-170 to LIMBO Int.

TUSI AHP (KHGT),

HUNTER LIGGETT, CA . . . . . AMDT 3, 08269

Helicopter use only. Climb on a heading between 010° CW to 190° from heliport (or a minimum climb rate of 530' per NM to 7800 for all other courses).

TWENTYNINE PALMS, CA

TWENTYNINE PALMS

TAKE-OFF MINIMUMS: **Rwy 17,** NA. **Rwys 8, 26, 35,** std. with a min. climb of 280' per NM to 5500.

DEPARTURE PROCEDURE: **Rwys 8, 26, 35,** turn right direct TNP VORTAC. Eastbound on V264 continue climb on course. All others climb in TNP holding pattern (E, left turns, 255° inbound) to cross TNP VORTAC at or above 6000 before proceeding on course. Northeast bound on V514-538 cross TNP VORTAC at or above 7900.

TWENTYNINE PALMS SELF (NXP)

TWENTYNINE PALMS, CA 07354

Diverse departure not authorized.

UPLAND, CA

CABLE

TAKE-OFF MINIMUMS: **Rwy 6,** 300-1 or std. with a min. climb of 240' per NM to 1900.

DEPARTURE PROCEDURE: **Rwy 6,** climbing right turn. **Rwy 24,** climbing left turn. **All aircraft** climb direct PDZ VORTAC. Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ holding pattern (E, right turns, 258° inbound) to cross PDZ VORTAC at or above: R-281 CW R-090, 6700; R-141 CW R-230, 4000.

VAN NUYS, CA

VAN NUYS

TAKE-OFF MINIMUMS: **Rwys 16L, 16R,** 2500-2 or std. with a min. climb of 300' per NM to 3800. **Rwys 34L, 34R,** 3300-2 or std. with a min. climb of 425' per NM to 4500.

DEPARTURE PROCEDURE: **Rwys 16L, 16R,** climbing left turn. **Rwys 34L, 34R,** climbing right turn. **All aircraft** intercept VNY R-095 to DARTS Int. Aircraft eastbound via V186 and southeastbound via V459 climb on course. All others, continue climbing right turn direct VNY VOR/DME before proceeding on course.

VANDENBERG AFB (KVBG)

LOMPOC, CA 09071

Rwy 12: GAVIATO ONE, 300-1.5

Rwy 12/30: All departures (GAVIATO ONE, VANDENBERG ONE, Diverse Departures Rwy 12/30, VCOA Rwy 12/30) CROSS DER AT OR ABOVE 35' AGL. **Rwy 12:** Diverse Departure Authorized: 6500-3 or standard with a minimum climb rate of 300'/NM to 8800, cross DER at or above 35' AGL/404' MSL. **Rwy 30:** Diverse Departure Authorized: 6400-3 or standard with a minimum climb rate of 270 ft/NM to 8800, cross DER at or above 35' AGL/274' MSL.

TAKE-OFF OBSTACLES: **Rwy 12** trees 40' AGL/479' MSL, 3814' from DER, 1126' right of centerline. Road with possible vehicles 10' AGL/443' MSL, 2961' from DER, 360' right of centerline. Trees 200' AGL/594' MSL, 1.3 NM from DER, 795' right of centerline. Trees 200' AGL/600' MSL, 1.1 NM from DER, 2250' right of centerline. Trees 200' AGL/604' MSL, 1.0 NM from DER, 90' right of centerline. Trees 200' AGL/600' MSL, 1.4 NM from DER, 2665' left of centerline. Trees 200' AGL/620' MSL, 6051' from DER, 2044' left of centerline. Trees 50' AGL/1375' MSL, 3.2 NM from DER, 5.0 NM left of centerline. Trees 107' AGL/546' MSL, 4548' from DER, 1479' right of centerline. **Rwy 12/30 VCOA**: For climb in Visual Conditions 2200-3, remain within 6.5 NM from airport, cross Vandenberg airport at or above 2400, then proceed as filed. Maximum airspeed 250 kts. Note: Aircrews must notify ATC prior to executing this VCOA procedure.

VICTORVILLE, CA

SOUTHERN CALIFORNIA LOGISTICS

TAKE-OFF MINIMUMS: **Rwy 3,** std. w/ min. climb of 266' per NM to 3500 or 5300-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 3,** climbing left turn heading 220°, thence. . .or for climb in visual conditions cross Southern California Logistics Airport at or above 8000 MSL before proceeding on course. **Rwys 17, 21,** climbing right turn heading 325°, thence. . . **Rwy 35,** climbing left turn heading 220°, thence. . .

. . .All aircraft climb via VCV VOR/DME R-269 to ETHER INT. Continue climb in ETHER holding pattern (NE PMD VORTAC, left turn, 247° inbound) to MEA for direction of flight.

NOTE: **Rwy 3,** pole 408' from departure end of runway, 511' right of centerline, 29' AGL/2873' MSL. Terrain beginning 153' from departure end of runway, 41' right of centerline, up to 3196' MSL. Terrain beginning 17' from departure end of runway, 104' left of centerline, up to 2855' MSL. Tree 2.1 NM from departure end of runway, 3735' right of centerline, 50' AGL/3269' MSL. **Rwy 17,** sign 248' from departure end of runway, 277' left of centerline, 14' AGL/2896' MSL. Antenna on building 701' from departure end of runway, 203' left of centerline, 20' AGL/2902' MSL.

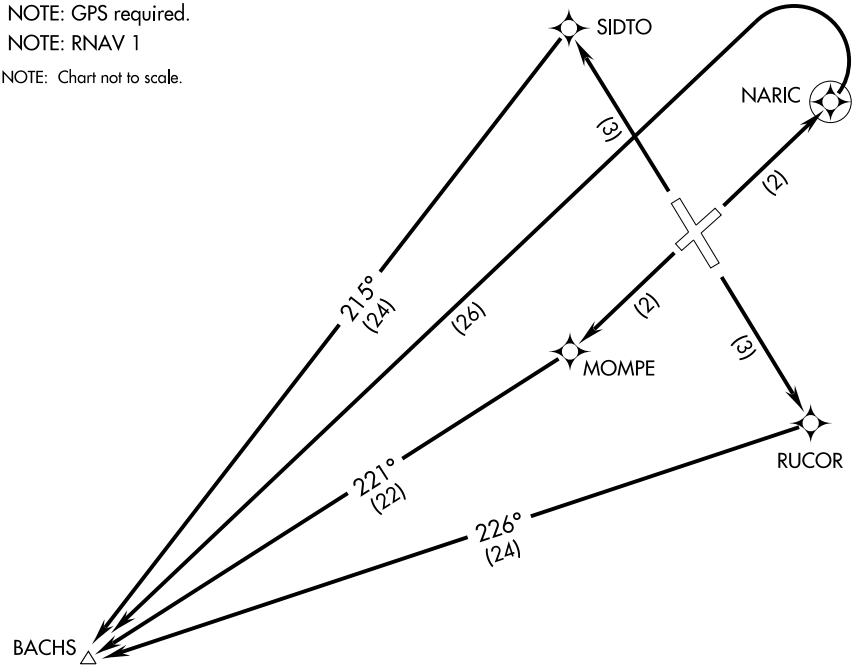
BACHS TWO DEPARTURE (RNAV) (OBSTACLE)

SEATTLE CENTER
127.6 346.35
CTAF 122.8

TAKE-OFF MINIMUMS

Rwy 3: Standard with minimum climb of 340 feet per NM to 5900.
Rwy 13: Standard with minimum climb of 230 feet per NM to 8200.
Rwy 21: Standard with minimum climb of 365 feet per NM to 6000.
Rwy 31: Standard with minimum climb of 450 feet per NM to 5800.

NOTE: GPS required.
NOTE: RNAV 1
NOTE: Chart not to scale.



TAKE-OFF OBSTACLE NOTES

Rwy 3: Trees, buildings, poles and a road with vehicles beginning 1′ from DER, right and left of centerline, up to 100′ AGL/4659′ MSL.
Rwy 21: Trees and road with vehicles beginning 1′ from DER, right and left of centerline, to 100′ AGL/4469′ MSL.
Rwy 13: Trees and a road with vehicles beginning 1′ from DER, right and left of centerline, up to 100′ AGL/4519′ MSL.
Rwy 31: Trees and road with vehicles beginning 1′ from DER, right and left of centerline, up to 100′ AGL/4469′ MSL.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 3: Climb to 9000 direct NARIC, then climbing left turn direct BACHS.

TAKE-OFF RUNWAY 13: Climb to 9000 direct RUCOR, turn right via 226° track to BACHS.

TAKE-OFF RUNWAY 21: Climb to 9000 direct MOMPE, then via 221° track to BACHS.

TAKE-OFF RUNWAY 31: Climb to 9000 direct SIDTO, turn left via 215° track to BACHS.

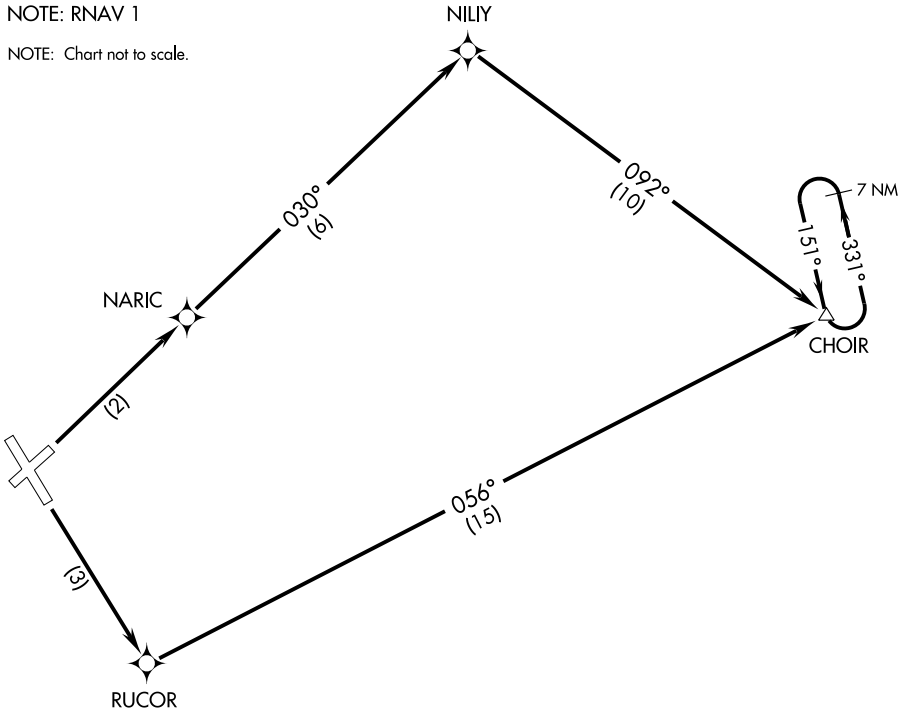
SW-2, 14 JAN 2010 to 11 FEB 2010

CHOIR TWO DEPARTURE (RNAV)

SEATTLE CENTER
127.6 346.35
CTAF 122.8

TAKE-OFF MINIMUMS
Rwy 3: Standard with minimum climb of 367′ per NM to 11000.
Rwy 13: Standard with minimum climb of 389′ per NM to 11000.
Rwys 21 and 31: NA - ATC.

NOTE: GPS required.
NOTE: RNAV 1
NOTE: Chart not to scale.



TAKE-OFF OBSTACLE NOTES
Rwy 3: Trees, buildings, poles and a road with vehicles beginning 1′ from DER, right and left of centerline, up to 100′ AGL/4659′ MSL.
Rwy 13: Trees and road with vehicles beginning 1′ from DER, right and left of centerline, up to 100′ AGL/4519′ MSL.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 3: Climb to 11000 direct NARIC and via 030° track to NILIY and via 092° track to CHOIR, Thence....

TAKE-OFF RUNWAY 13: Climb to 11000 direct RUCOR and via 056° track to CHOIR, Thence....

....climb in holding, (if required) before proceeding on course.

SW-2, 14 JAN 2010 to 11 FEB 2010

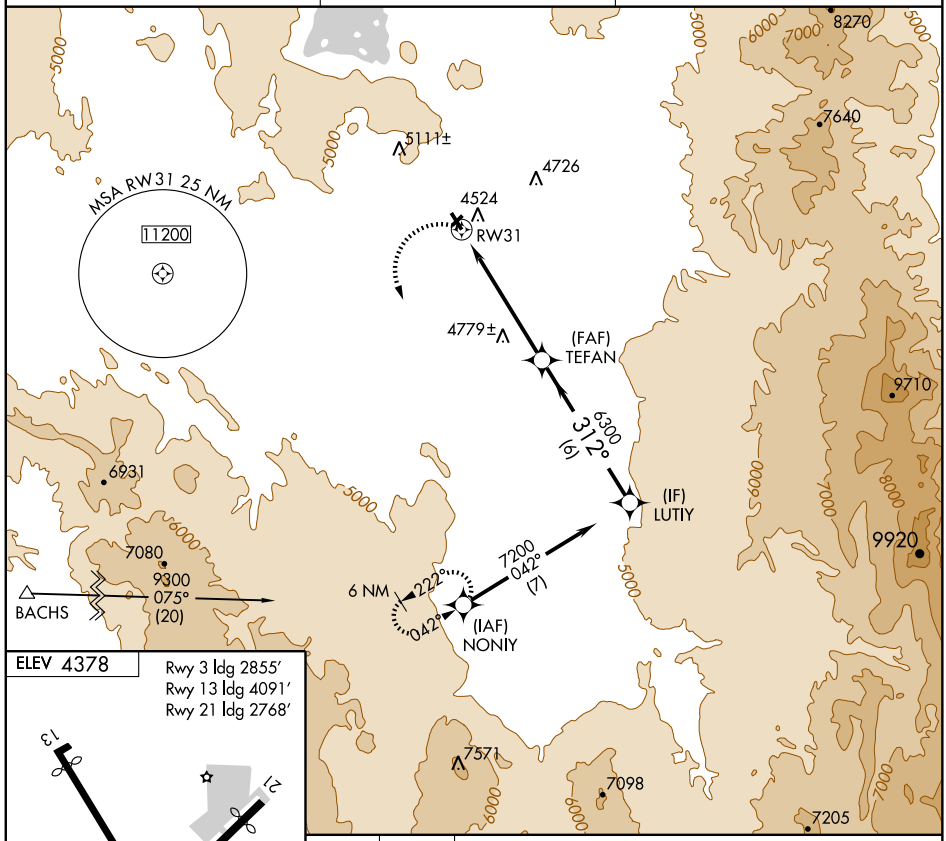
APP CRS	Rwy Idg	4300
312°	TDZE	4378
	Apt Elev	4378

RNAV (GPS) RWY 31
ALTURAS MUNI (AAT)

DME/DME RNP- 0.3 NA.

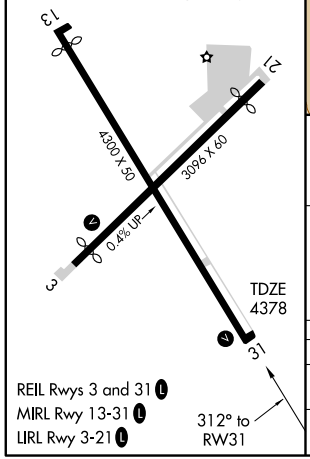
MISSED APPROACH: Climbing left turn to 9300 direct NONIY and hold, continue climb-in-hold to 9300.

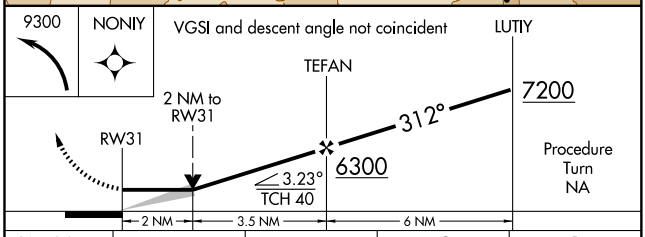
ASOS	SEATTLE CENTER	UNICOM
124.175	127.6 346.35	122.8 (CTAF) L



ELEV 4378

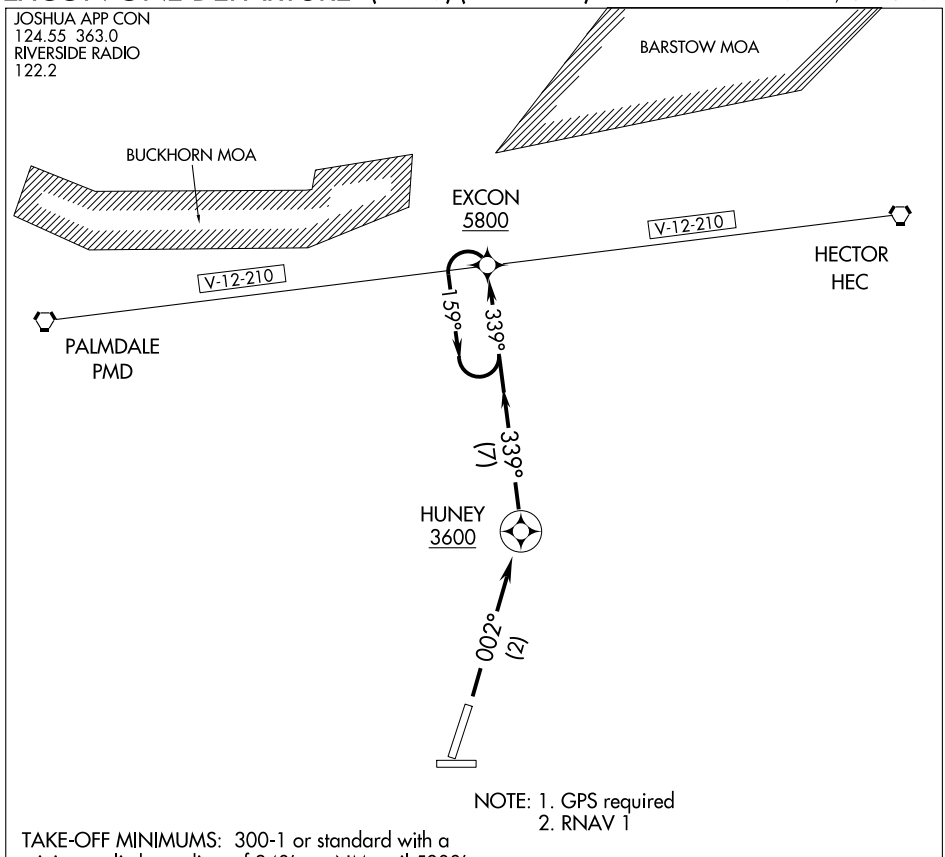
Rwy 3 ldg 2855′
Rwy 13 ldg 4091′
Rwy 21 ldg 2768′





CATEGORY	A	B	C	D
LNAV MDA	5040-1	662 (700-1)	NA	
CIRCLING	5040-1	662 (700-1)	NA	

EXCON ONE DEPARTURE (RNAV) (OBSTACLE)



NOTE: 1. GPS required
2. RNAV 1

TAKE-OFF MINIMUMS: 300-1 or standard with a minimum climb gradient of 340′ per NM until 5800′.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 36: Climb via 002° course to HUNEY WP, then 339° course to EXCON WP, then climb in EXCON WP holding pattern (hold S left turns 339° inbound) to 7500′ MSL then proceed on course.

APPLE VALLEY, CALIFORNIA

AL-5822 (FAA)

APP CRS		
182°	Rwy Idg	6498
	TDZE	3062
	Apt Elev	3062

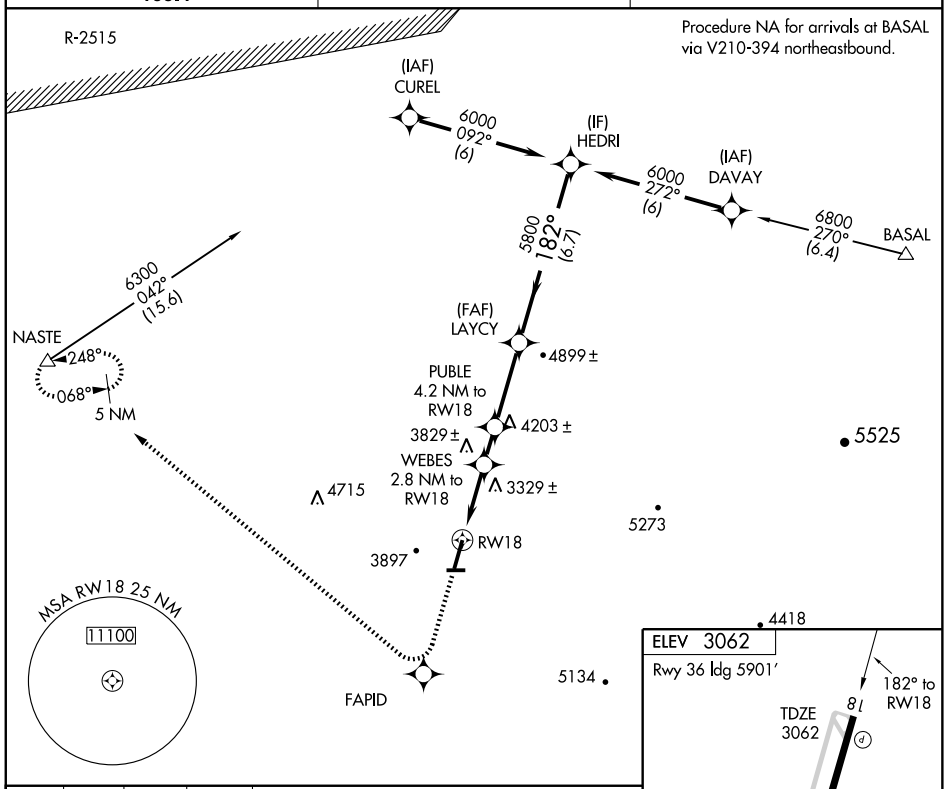
RNAV (GPS) Y RWY 18

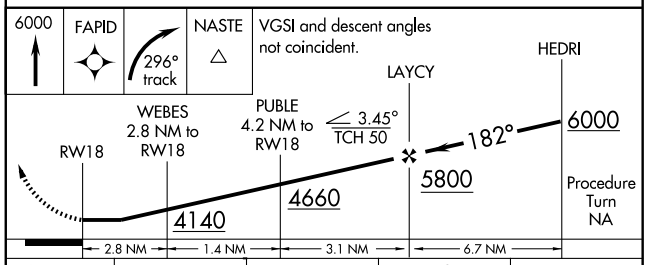
APPLE VALLEY (APV)

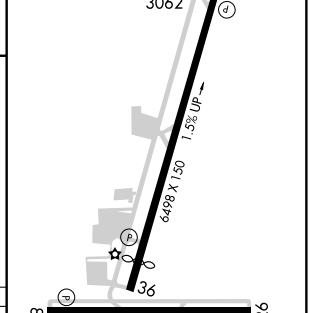
Circling to Rwy 8 and 26 NA at night.
DME/DME RNP-0.3 NA.
NA Visibility reduction by helicopters NA.
Use Southern California Logistics altimeter setting; if not received, procedure NA.

MISSED APPROACH: Climb to 6000 direct FAPID and right turn via 296° track to NASTE and hold.

SOUTHERN CALIFORNIA LOGISTICS AWOS-3	JOSHUA APP CON	UNICOM
109.4	124.55 363.0	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	3700-1 638 (700-1)		3700-1¾ 638 (700-1¾)	3700-2 638 (700-2)
CIRCLING	4000-1 938 (1000-1)	4300-1 1238 (1300-1)	4320-3 1258 (1300-3)	4660-3 1598 (1600-3)

MIRL Rwy 18-36 L

SW-3, 14 JAN 2010 to 11 FEB 2010

APPLE VALLEY, CALIFORNIA

AL-5822 (FAA)

WAAS	APP CRS	Rwy Idg	6498
Ch 63102	182°	TDZE	3062
W18A		Apt Elev	3062

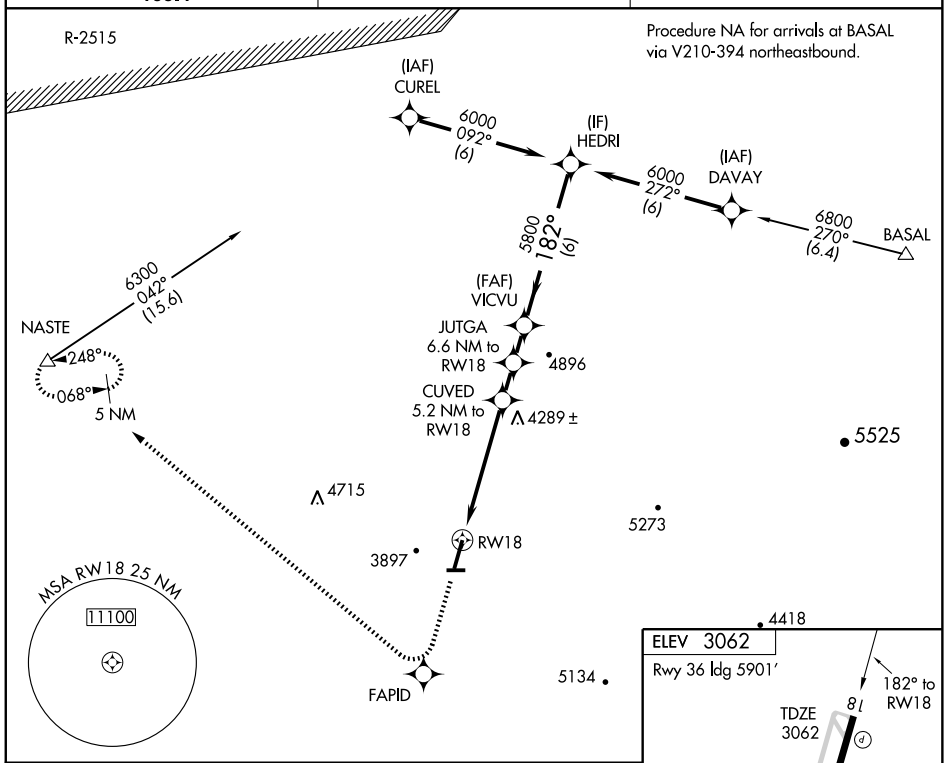
RNAV (GPS) Z RWY 18

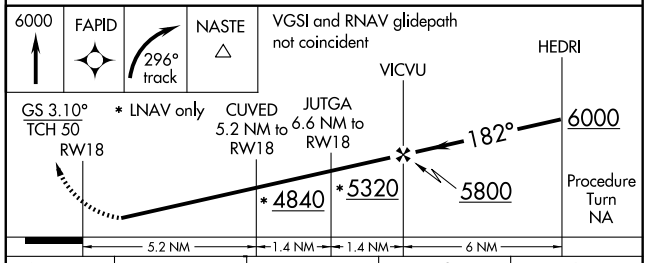
APPLE VALLEY (APV)

Circling to Rwy 8 and 26 NA at night.
DME/DME RNP-0.3 NA.
NA Visibility reduction by helicopters NA.
W Use Southern California Logistics altimeter setting; if not received, procedure NA.

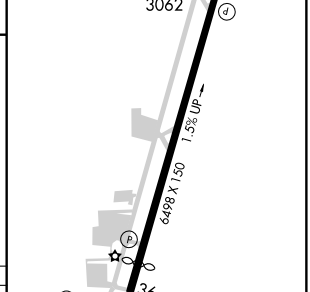
MISSED APPROACH: Climb to 6000 direct FAPID and right turn via 296° track to NASTE and hold.

SOUTHERN CALIFORNIA LOGISTICS AWOS-3	JOSHUA APP CON	UNICOM
109.4	124.55 363.0	122.8 (CTAF) L





CATEGORY	A	B	C	D
LPV DA	3439-1¼ 377 (400-1¼)			
LNAV MDA	4600-1¼ 1538 (1600-1¼)	4600-1½ 1538 (1600-1½)	4600-3 1538 (1600-3)	
CIRCLING	4600-1¼ 1538 (1600-1¼)	4600-1½ 1538 (1600-1½)	4600-3 1538 (1600-3)	4660-3 1598 (1600-3)

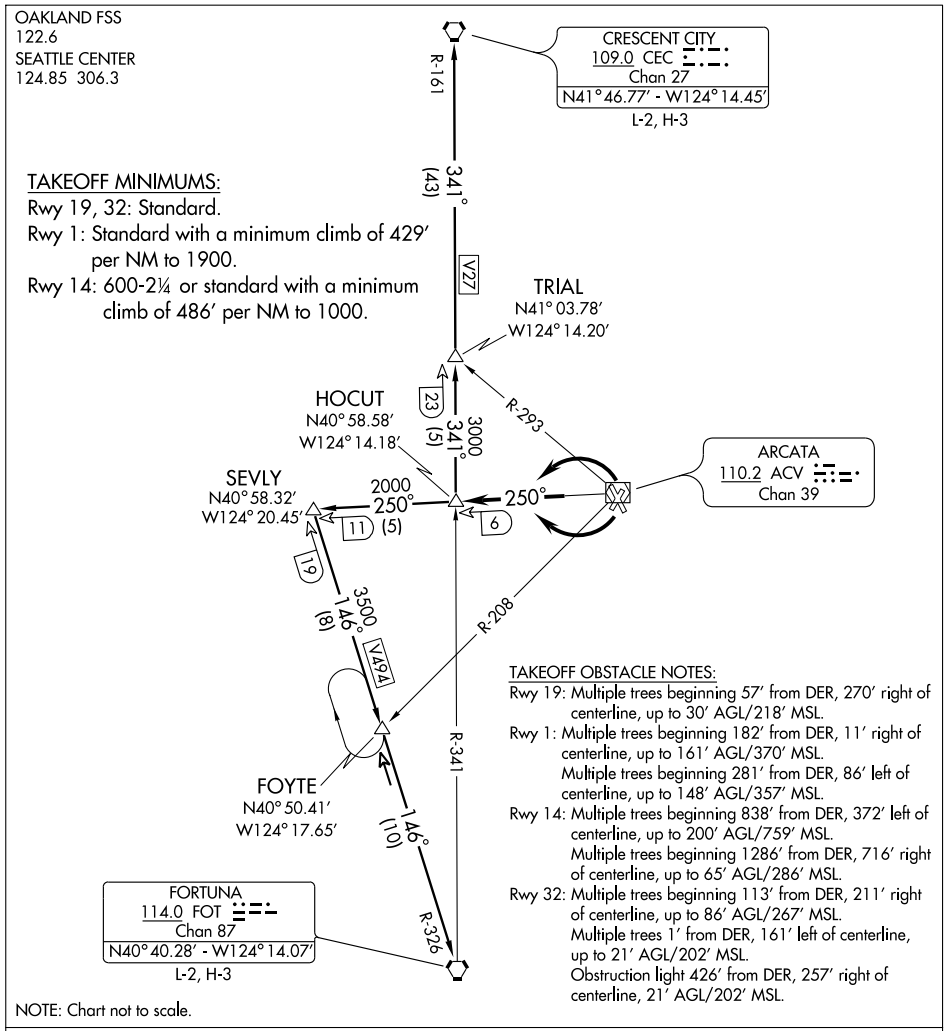


MIRL Rwy 18-36 L

SW-3, 14 JAN 2010 to 11 FEB 2010

HOCUT THREE DEPARTURE

SL-519 (FAA)



TAKEOFF MINIMUMS:
Rwy 19, 32: Standard.
Rwy 1: Standard with a minimum climb of 429′ per NM to 1900.
Rwy 14: 600-2¼ or standard with a minimum climb of 486′ per NM to 1000.

TAKEOFF OBSTACLE NOTES:
Rwy 19: Multiple trees beginning 57′ from DER, 270′ right of centerline, up to 30′ AGL/218′ MSL.
Rwy 1: Multiple trees beginning 182′ from DER, 11′ right of centerline, up to 161′ AGL/370′ MSL.
Multiple trees beginning 281′ from DER, 86′ left of centerline, up to 148′ AGL/357′ MSL.
Rwy 14: Multiple trees beginning 838′ from DER, 372′ left of centerline, up to 200′ AGL/759′ MSL.
Multiple trees beginning 1286′ from DER, 716′ right of centerline, up to 65′ AGL/286′ MSL.
Rwy 32: Multiple trees beginning 113′ from DER, 211′ right of centerline, up to 86′ AGL/267′ MSL.
Multiple trees 1′ from DER, 161′ left of centerline, up to 21′ AGL/202′ MSL.
Obstruction light 426′ from DER, 257′ right of centerline, 21′ AGL/202′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 1 and 32: Climbing left turn, thence. . . .
TAKE-OFF RUNWAYS 14 and 19: Climbing right turn, thence. . . .
. . . .via ACV R-250 to HOCUT INT.

CRESCENT CITY TRANSITION (HOCUT3.CEC): From over HOCUT INT via FOT R-341 and CEC R-161 to CEC VORTAC.
FORTUNA TRANSITION (HOCUT3.FOT): From over HOCUT INT via ACV R-250 to SEVLY INT, then via FOT R-326 to FOT VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-ACV	APP CRS	Rwy Idg	5198
109.5	316°	TDZE	221
Chan 32		Apt Elev	221

ILS or LOC/DME RWY 32
ARCATA (ACV)

Circling NA east of Rwy 14-32. When local altimeter setting not received, use Crescent City altimeter setting and increase all DA 135 feet, all MDA 140 feet. Increase S-ILS 32 visibility to RVR 4000, S-LOC 32 Cat B visibility to RVR 4000, Cat C to 1¾, and Cat D to 2. Increase visibility circling Cats B/C ¼ mile, Cat D ½ mile.

MALSR

MISSED APPROACH: Climb to 800, then climbing left turn to 3000 via heading 250° and FOT R-341 to TRIAL Int and hold.

ASOS	SEATTLE CENTER	UNICOM
118.525	124.85 306.3	123.0 (CTAF) L

DME REQUIRED

R-341 TRIAL FOT 23.5
161° 341°
R-293 116°
LOCALIZER 109.5 I-ACV Chan 32
ARCATA 110.2 ACV Chan 39
LMM ABETA 233 CV
882 597± 619±
ACATA OM I-ACV 5.7
2000 316° (1.8)
I-ACV 7.5
2500 316° (2.5)
I-ACV 10
1934
KORBE INT I-ACV 12
3200 316° (2)
2386
R-341
10 NM
R-034
MSA ACV 25 NM
5900 220° 110° 7200 2300 010°
3600 034° (13.7)
IAF FORTUNA 114.0 FOT Chan 87
3049 ELEV 3049
133°
4092 4260 3404
1000 2000 3000 4000

ELEV 221 D

800	3000	FOT	TRIAL
	250°	R-341	△
		114.0	

Use I-ACV DME when on LOC course.

Procedure Turn NA
I-ACV 10
KORBE INT I-ACV 12

ACATA OM I-ACV 5.7
ABETA LMM I-ACV 1.1
I-ACV 7.5
1753
316° 3600 3200
2500 2000 2000
GS 3.00° TCH 48
0.4 4.2 NM 1.8 NM 2.5 NM 2 NM

14 32 19
0.7% UP 0.5% UP
6000 X 150
4499 X 150
251 267 268
TDZE 221
334± 316° 4.6 NM from FAF

TDZ/CL Rwy 32 L
MIRL Rwy 1-19
HIRL Rwy 14-32 L
REIL Rwys 14 and 32 L
REIL Rwy 1

CATEGORY	A	B	C	D
S-ILS 32	421/18 200 (200-½)			
S-LOC 32	860/24 639 (700-½)		860/60 639 (700-1¼)	860-1½ 639 (700-1½)
CIRCLING	860-1 639 (700-1)		860-1¾ 639 (700-1¾)	860-2 639 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-ACV	APP CRS	Rwy Idg	5198
109.5	316°	TDZE	221
Chan 32		Apt Elev	221

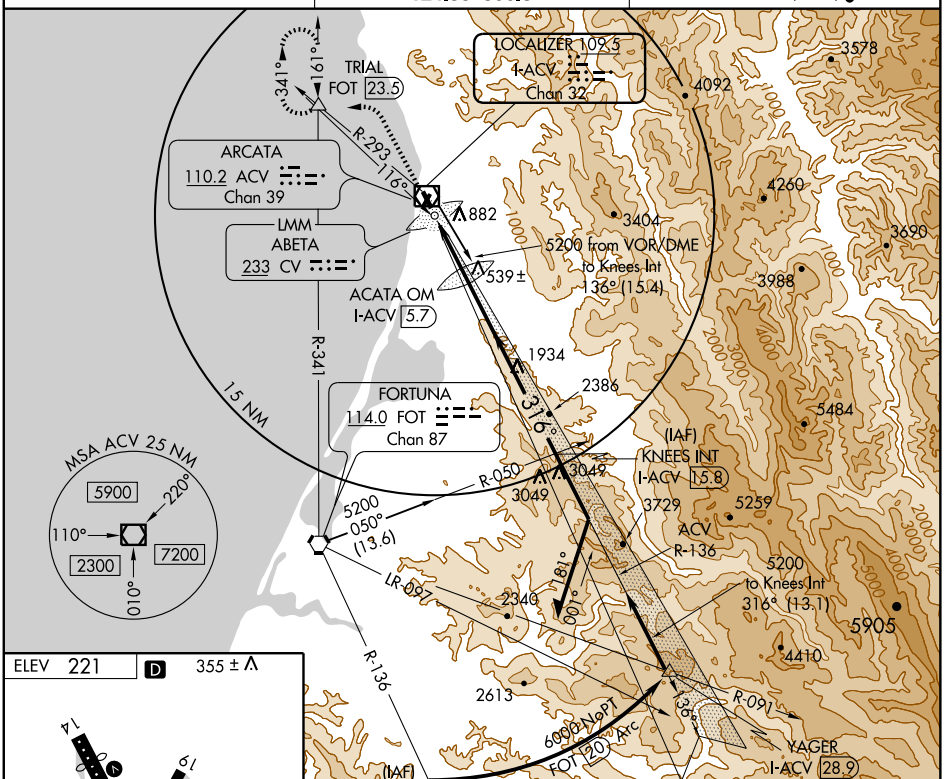
ILS RWY 32
ARCATA (ACV)

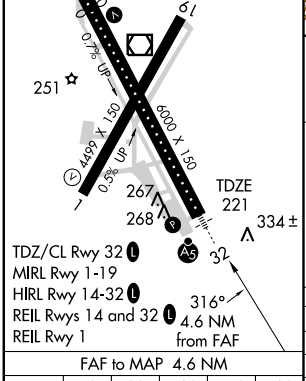
Circling NA east of Rwy 14-32. Circling requires descent on glide slope to MDA. When local altimeter setting not received, use Crescent City altimeter setting and increase all DA 135 feet, all MDA 140 feet. Increase S-ILS 32 visibility to RVR 4000 and increase circling visibility Cat D to 2¼ .

MALSR

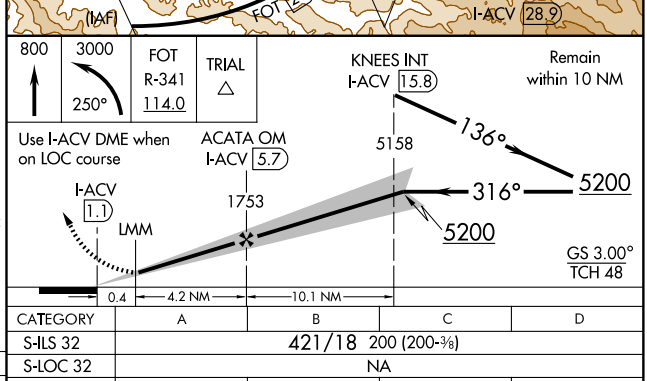
MISSED APPROACH: Climb to 800, then climbing left turn to 3000 via heading 250° and FOT R-341 to TRIAL INT and hold.

ASOS	SEATTLE CENTER	UNICOM
118.525	124.85 306.3	123.0 (CTAF) L





FAF to MAP 4.6 NM					
Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32



CATEGORY	A	B	C	D
S-ILS 32	421/18 200 (200-⅜)			
S-LOC 32	NA			
CIRCLING	620-1 399 (400-1)	680-1 459 (500-1)	680-1½ 459 (500-1½)	780-2 559 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

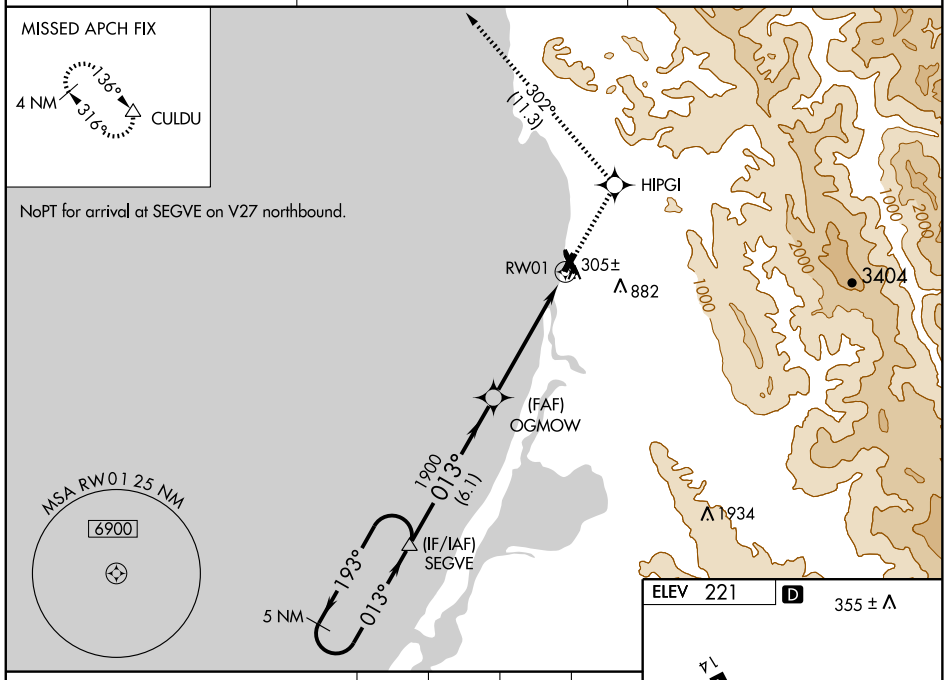
WAAS	APP CRS	Rwy Idg	4499
CH 63200	013°	TDZE	204
W01A		Apt Elev	221

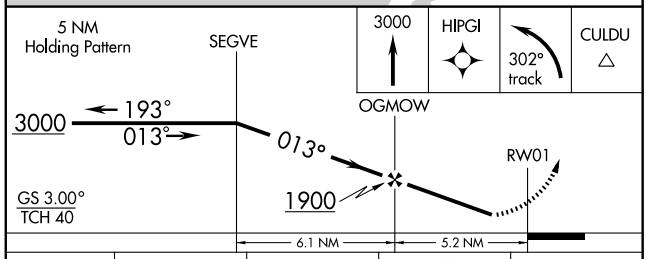
RNAV (GPS) RWY 1
ARCATA (ACV)

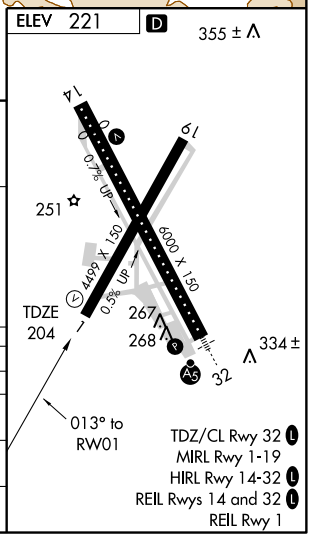
T DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
A Circling NA east of Rwy 14-32.
W For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (119°F).
If local altimeter setting not received, use Crescent City altimeter setting and increase all DA/MDAs 140 feet.
Baro-VNAV NA when using Crescent City altimeter setting.

MISSED APPROACH: Climb to 3000 direct HIPGI and left turn via 302° track to CULDU and hold.

ASOS	SEATTLE CENTER	UNICOM
118.525	124.85 306.3	123.0 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	768-2 564 (600-2)			
LNAV/VNAV DA	919-2½ 715 (700-2½)			
LNAV MDA	1140-1¼ 936 (1000-1¼)		1140-2¾ 936 (1000-2¾)	1140-3 936 (1000-3)
CIRCLING	1140-2½ 919 (1000-2½)		1140-2¾ 919 (1000-2¾)	1140-3 919 (1000-3)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	5198
CH 62801	136°	TDZE	207
W14A		Apt Elev	221

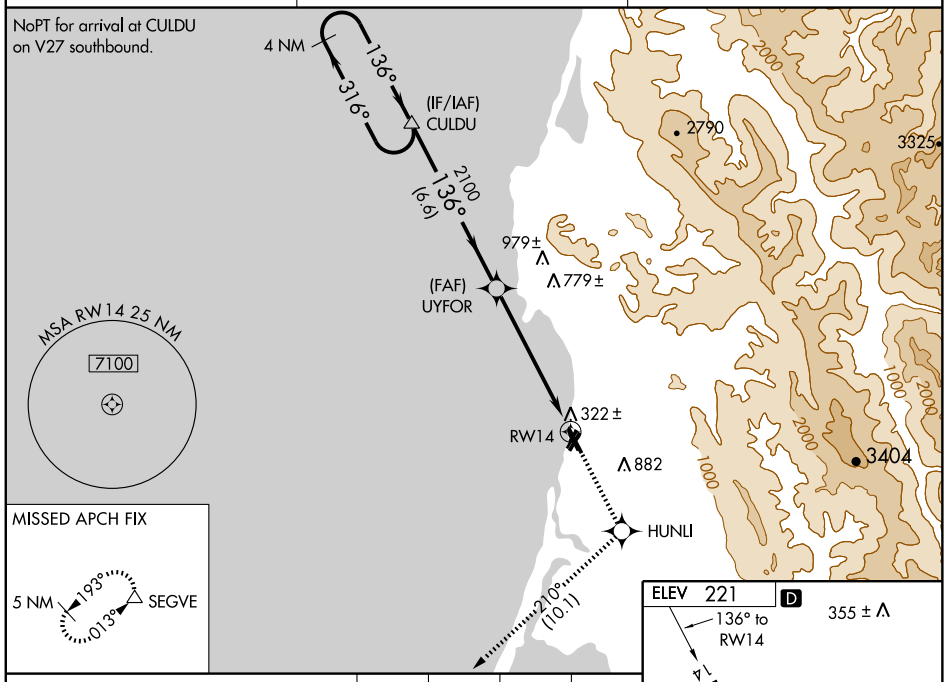
RNAV (GPS) RWY 14
ARCATA (ACV)

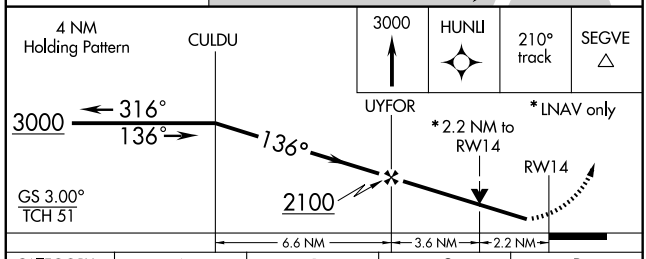
T DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
A Circling NA east of Rwy 14-32.
W For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (119°F).
If local altimeter setting not received, use Crescent City altimeter setting and increase all DA/MDAs 140 feet.
VDP and Baro-VNAV NA when using Crescent City altimeter setting.

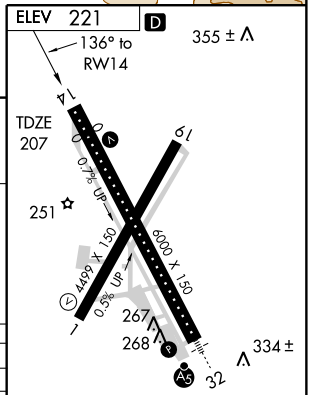
MISSED APPROACH: Climb to 3000 direct HUNLI and via 210° track to SEGVE and hold.

ASOS	SEATTLE CENTER	UNICOM
118.525	124.85 306.3	123.0 (CTAF) L

NoPT for arrival at CULDU on V27 southbound.







CATEGORY	A	B	C	D
LPV DA	459-1 252 (300-1)			
LNAV/VNAV DA	710-1¾ 503 (500-1¾)			
LNAV MDA	880-1 673 (700-1)		880-2 673 (700-2)	880-2¼ 673 (700-2¼)
CIRCLING	880-1¾ 659 (700-1¾)		880-2 659 (700-2)	880-2¼ 659 (700-2¼)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	5198
CH 63108	316°	TDZE	221
W32A		Apt Elev	221

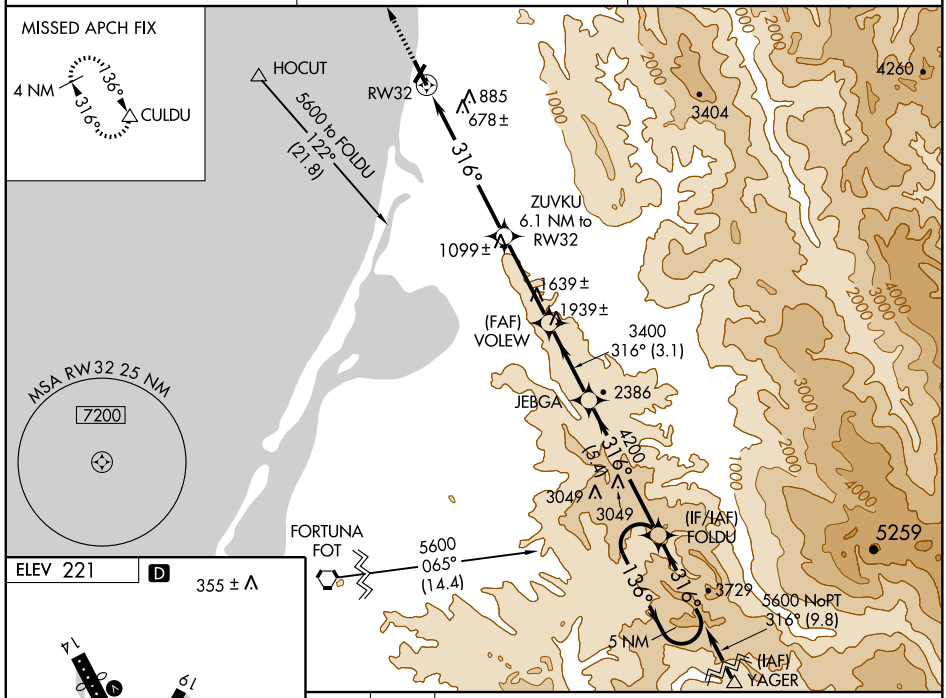
RNAV (GPS) RWY 32
ARCATA (ACV)

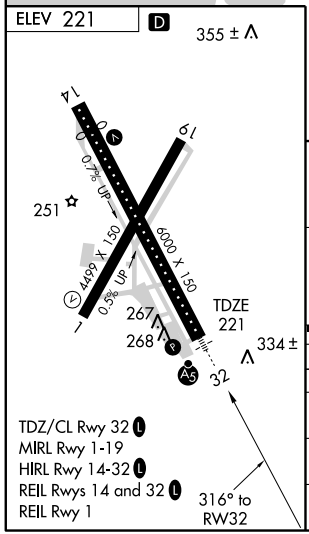
T Circling NA east of Rwy 14-32.
A Baro-VNAV NA when using Crescent City altimeter setting.
W For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F).
DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA.
Inoperative table does not apply to LPV, LNAV/VNAV, and LNAV Cats A and B.
When local altimeter setting not received, use Crescent City altimeter setting and increase all DA/MDA 140 feet, increase visibilities LPV ½ mile all Cats, LNAV Cats A, B ¼ mile, Cats C, D 1 mile, inoperative table does not apply.

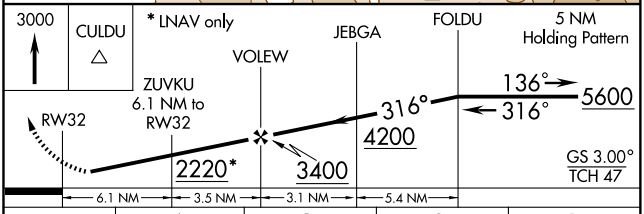
MALSR

MISSED APPROACH: Climb to 3000 direct CULDU and hold.

ASOS	SEATTLE CENTER	UNICOM
118.525	124.85 306.3	123.0 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	509/50 288 (300-1)			
LNAV/VNAV DA	1164-4 943 (1000-4)			
LNAV MDA	940/50 719 (800-1)		940-1½ 719 (800-1½)	940-1¾ 719 (800-1¾)
CIRCLING	940-1 719 (800-1)		940-2 719 (800-2)	940-2¼ 719 (800-2¼)

SW-2, 14 JAN 2010 to 11 FEB 2010

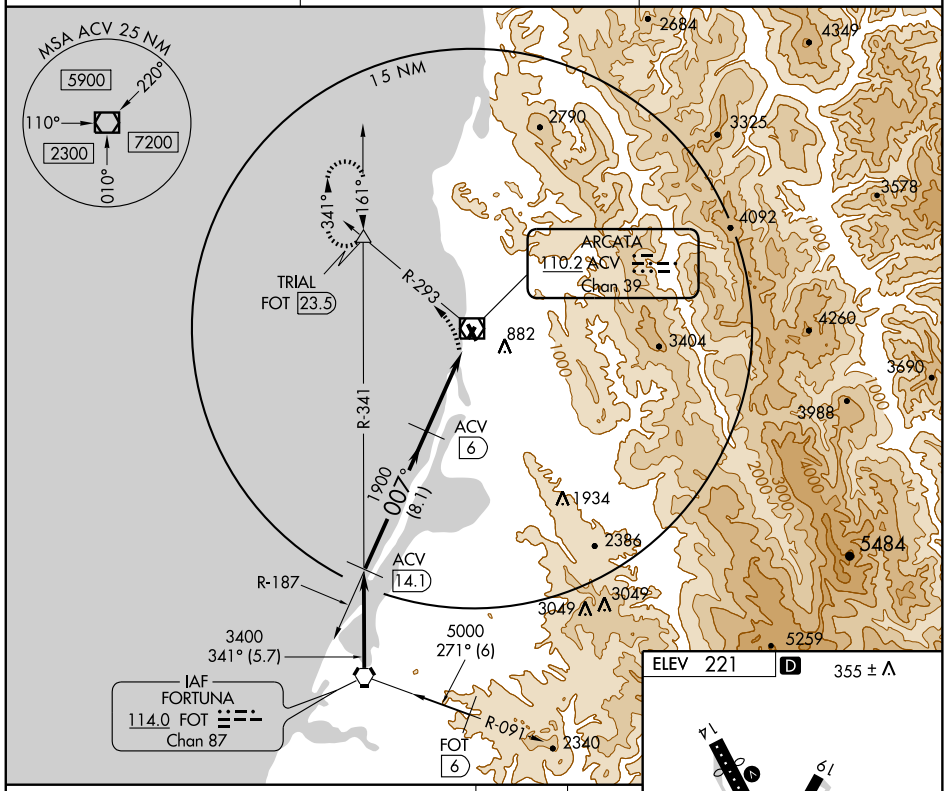
VOR/DME ACV	APP CRS	Rwy Idg	4499
110.2	007°	TDZE	204
Chan 39		Apt Elev	221

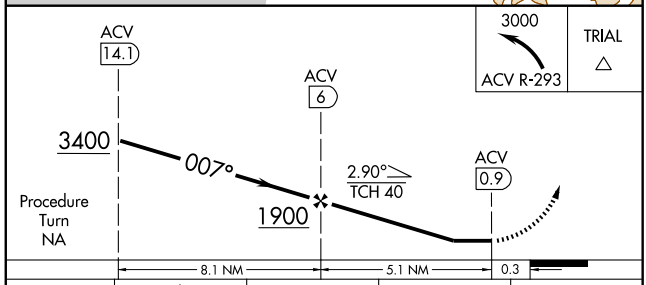
VOR/DME RWY 1
ARCATA (ACV)

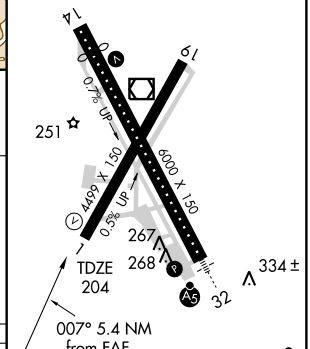
Circling not authorized east of Rwy 14-32.

MISSED APPROACH: Climbing left turn to 3000 via ACV R-293 to TRIAL Int/DME and hold.

ASOS	SEATTLE CENTER	UNICOM
118.525	124.85 306.3	123.0 (CTAF) L







TDZ/CL Rwy 32 L
MIRL Rwy 1-19
HIRL Rwy 14-32 L
REIL Rwys 14 and 32 L
REIL Rwy 1

CATEGORY	A	B	C	D
S-1	580-1 376 (400-1)			580-1¼ 376 (400-1¼)
CIRCLING	620-1 399 (400-1)	680-1 459 (500-1)	680-1½ 459 (500-1½)	780-2 559 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME ACV	APP CRS	Rwy Idg	5198
110.2	123°	TDZE	207
Chan 39		Apt Elev	221

VOR/DME RWY 14
ARCATA (ACV)

Circling NA east of Rwy 14-32.
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Crescent City altimeter setting and increase all MDA 140 feet and S-14 visibility Cat C ¼ mile, Cat D ½ mile, and circling Cat D ¼ mile.
VDP NA when using Crescent City altimeter setting.

MISSED APPROACH: Climbing right turn to 3000 via ACV VOR/DME R-208 to HEXIT INT/8.2 DME and hold, continue climb-in-hold to 3000.

ASOS	SEATTLE CENTER	UNICOM
118.525	124.85 306.3	123.0 (CTAF) L

DME REQUIRED

R-303 123° 1 min 303° (IAF) WHEEL ACV 9.1

123°

3500 to WHEEL 303° (9.1)

LIGHT ACV 2.4

HONAD ACV 0.2

357 ±

R-341

ARCATA 110.2 ACV Chan 39

882

2790 3325 4092 3404 10 NM 1000 2000 3000

R-208

HEXIT ACV 8.2

208° 028°

MSA ACV 25 NM
5900 7200 2300
220° 110° 010°

1934 4800 to VOR/DME 31.6 115.4

2386

KNEES ACV 15.4

3049

114.0 FOT Chan 87

ELEV 221 D

355 ± 123° 8.9 NM from FAF

TDZE 207

14 19 0.7% UP 0.5% UP 4499 X 150 6000 X 150

251 267 268 334 ± 32 A5

One Minute Holding Pattern

WHEEL ACV 9.1

3000 303° 123° 123°

LIGHT ACV 2.4

ACV 1.5

HONAD ACV 0.2

2.93° TCH 51

920

6.7 NM 0.9 1.3 NM

3000 ACV R-208 HEXIT

TDZ/CL Rwy 32 L
MIRL Rwy 1-19
HIRL Rwy 14-32 L
REIL Rwys 14 and 32 L
REIL Rwy 1

CATEGORY	A	B	C	D
S-14	620-1 413 (400-1)		620-1¼ 413 (400-1¼)	
CIRCLING	620-1 399 (400-1)	680-1 459 (500-1)	680-1½ 459 (500-1½)	780-2 559 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3500
068°	TDZE	1531
	Apt Elev	1531

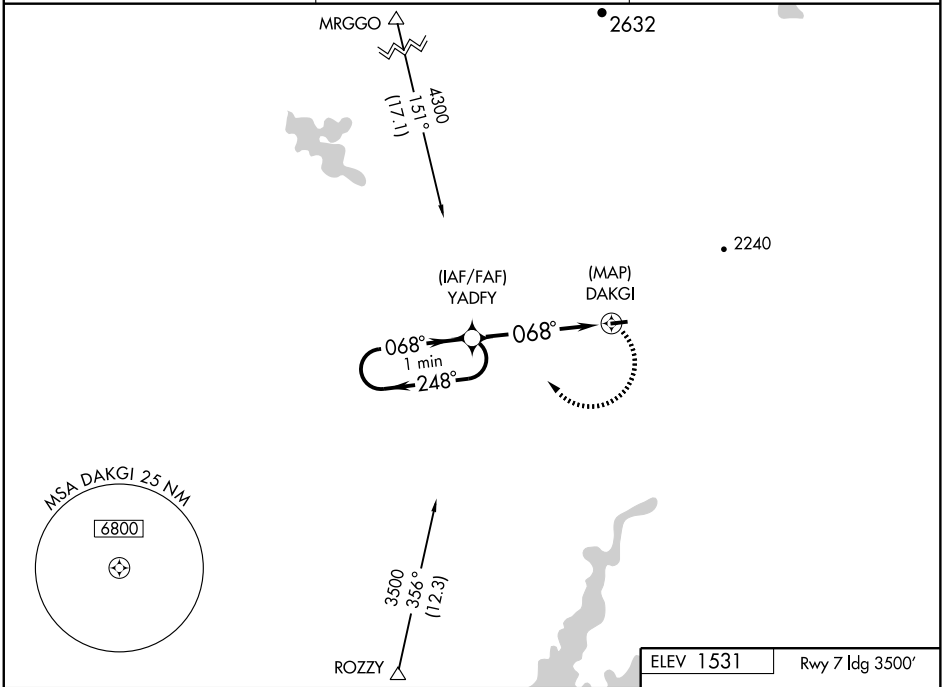
GPS RWY 7
AUBURN MUNI (AUN)

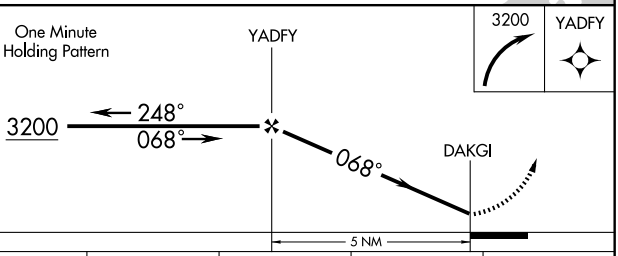
T
A NA

Obtain local altimeter setting on CTAF; when not received use Lincoln, CA (Lincoln Regional) altimeter setting, when neither received procedure not authorized.

MISSED APPROACH: Climbing right turn to 3200 direct YADFY WP and hold.

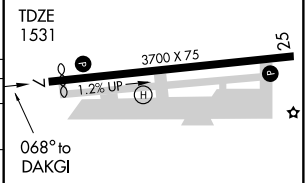
AWOS-3	NORCAL APP CON	UNICOM
119.375	125.4 317.5	122.7 (CTAF) L





CATEGORY	A	B	C	D
S-7	1980-1	449 (500-1)	NA	
CIRCLING	2200-1 669 (700-1)	2260-1 729 (800-1)	NA	
LINCOLN, CA (LINCOLN REGIONAL) ALTIMETER SETTING MINIMUMS				
S-7	2200-1	669 (700-1)	NA	
CIRCLING	2440-1¼ 909 (1000-1¼)	2480-1¼ 949 (1000-1¼)	NA	

ELEV 1531 Rwy 7 ldg 3500′



MIRL Rwy 7-25 L

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC SXC 111.4 Chan 51	APP CRS 172°	Rwy Idg N/A TDZE N/A Apt Elev 1602

VOR/DME or GPS-B

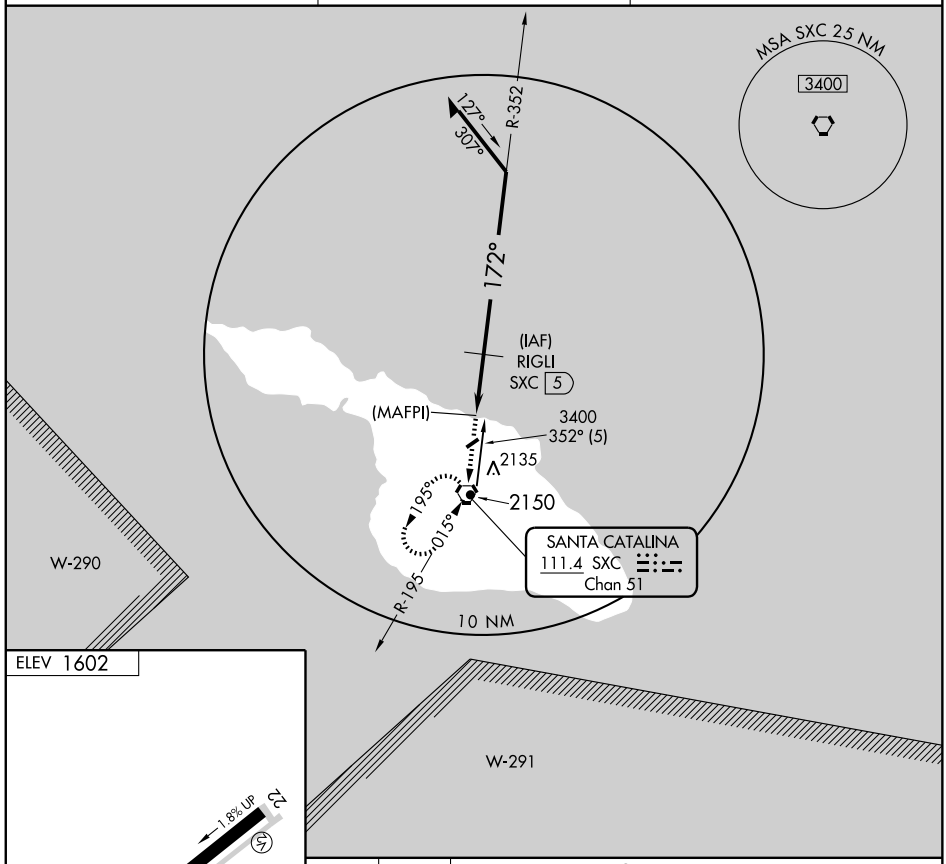
AVALON/ CATALINA (AVX)

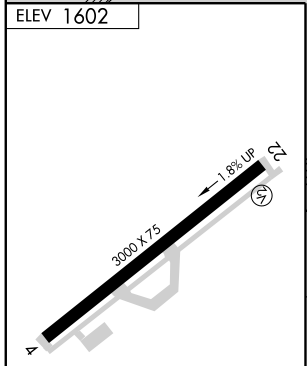
NA

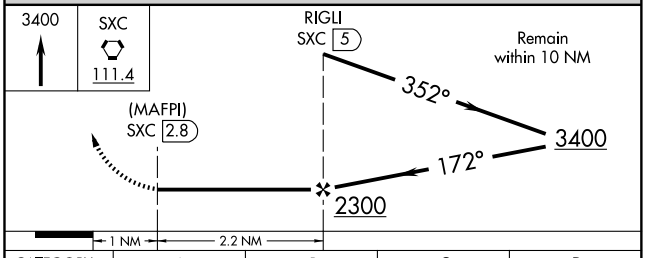
Circling southeast runway 4-22 not authorized.

MISSED APPROACH: Climb to 3400 direct SXC VORTAC and hold.

ASOS	SOCAL APP CON	UNICOM
120.675	127.4 323.275	122.7 (CTAF)







CATEGORY	A	B	C	D
CIRCLING	2220-1 618 (700-1)		NA	

REIL Rwy 22
MIRL Rwy 4-22

SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC SXC	APP CRS	Rwy Idg	N/A
111.4	352°	TDZE	N/A
Chan 51		Apt Elev	1602

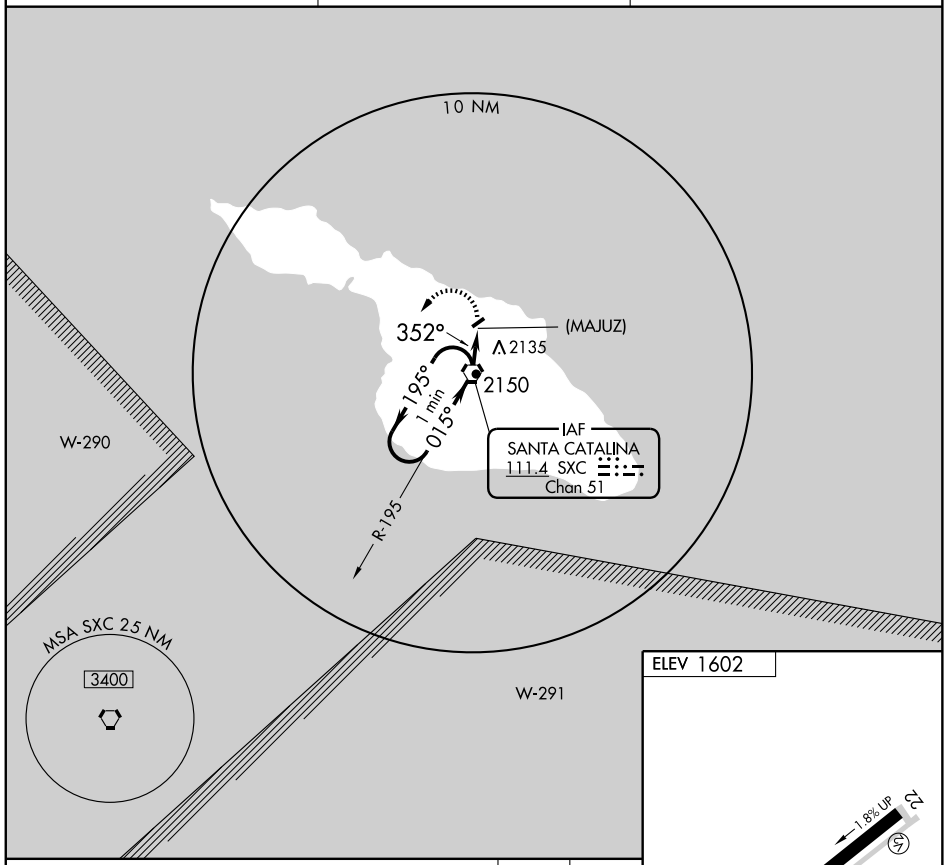
VOR or GPS-A

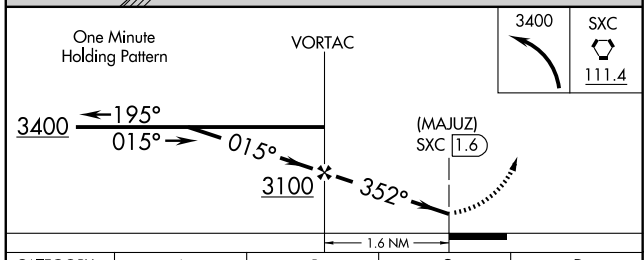
AVALON/ CATALINA (AVX)

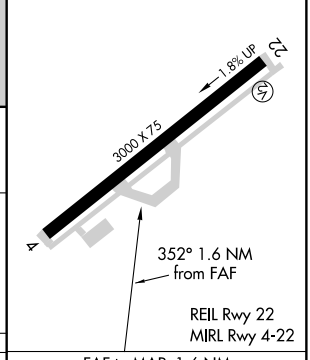
NA

MISSED APPROACH: Climbing left turn to 3400 in SXC VORTAC holding pattern.

ASOS	SOCAL APP CON	UNICOM
120.675	127.4 323.275	122.7 (CTAF)





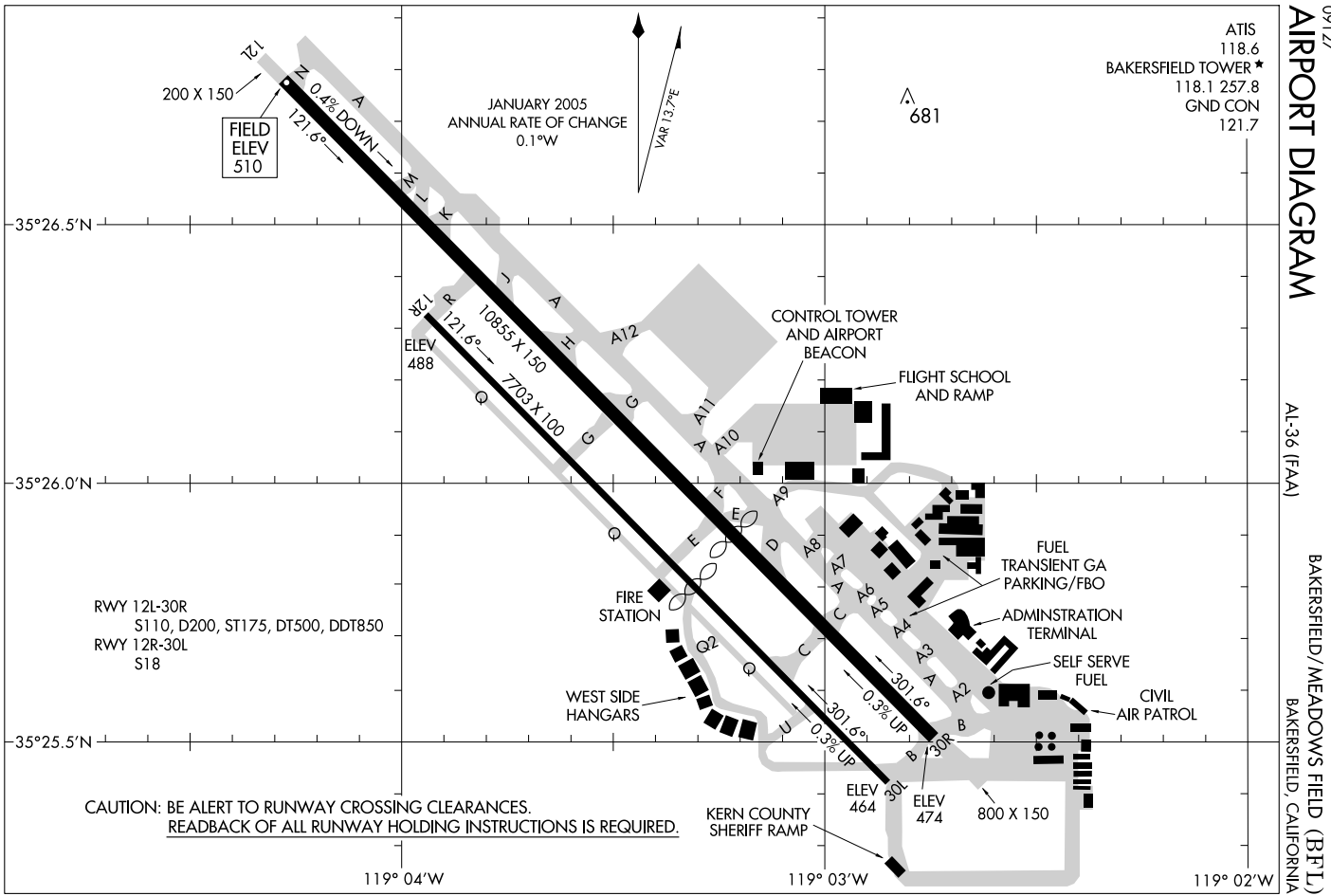


CATEGORY	A	B	C	D
CIRCLING	2560-1¼ 958 (1000-1¼)	2560-1½ 958 (1000-1½)	NA	

FAF to MAP 1.6 NM

Knots	60	90	120	150	180
Min:Sec	1:36	1:04	0:48	0:38	0:32

SW-3, 14 JAN 2010 to 11 FEB 2010

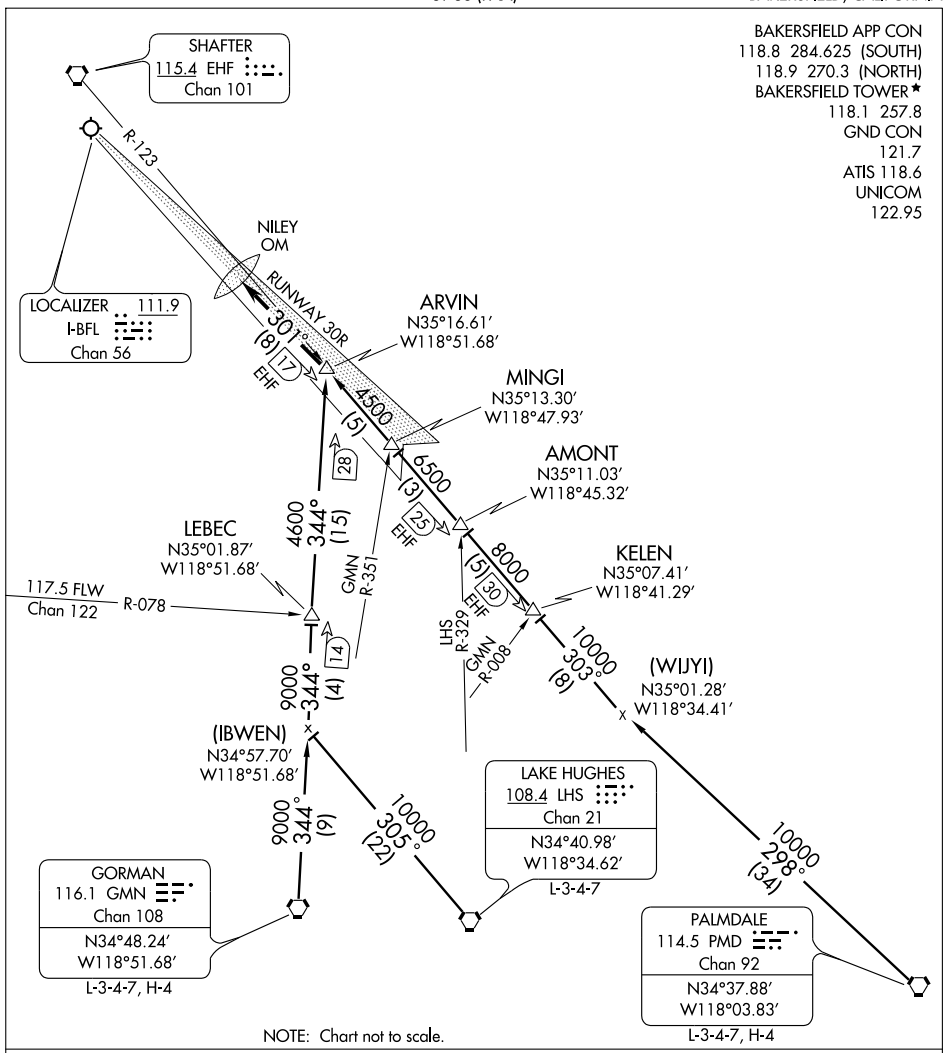

AIRPORT DIAGRAM
BAKERSFIELD/MEADOWS FIELD (BFL)
BAKERSFIELD, CALIFORNIA
AL-36 (FAA)
ATIS
118.6
BAKERSFIELD TOWER ★
118.1 257.8
GND CON
121.7
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°W
VAR 13.7°E
681
12L
200 X 150
FIELD ELEV 510
0.4% DOWN
121.6°
12R
ELEV 488
10855 X 150
7703 X 100
CONTROL TOWER AND AIRPORT BEACON
FLIGHT SCHOOL AND RAMP
FUEL
TRANSIENT GA PARKING/FBO
ADMINSTRATION TERMINAL
SELF SERVE FUEL
CIVIL AIR PATROL
FIRE STATION
WEST SIDE HANGARS
RWY 12L-30R
S110, D200, ST175, DT500, DDT850
RWY 12R-30L
S18
301.6°
0.3% UP
30R
30L
ELEV 464
ELEV 474
800 X 150
KERN COUNTY SHERIFF RAMP
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
35°26.5'N
35°26.0'N
35°25.5'N
119° 04'W
119° 03'W
119° 02'W

(ARVIN.ARVIN1) 09127

ARVIN ONE ARRIVAL

ST-36 (FAA)

MEADOWS FIELD
BAKERSFIELD, CALIFORNIA



GORMAN TRANSITION (GMN.ARVIN1): From over GMN VORTAC via GMN R-344 to ARVIN INT. Thence....

LAKE HUGHES TRANSITION (LHS.ARVIN1): From over LHS VORTAC via LHS R-305 and GMN R-344 to ARVIN INT. Thence....

PALMDALE TRANSITION (PMD.ARVIN1): From over PMD VORTAC via PMD R-298 and EHF R-123 to ARVIN INT. Thence....

....From over ARVIN INT via the I-BFL ILS 30R localizer to NILEY OM.

LOST COMMUNICATIONS: From over ARVIN INT via I-BFL ILS 30R to NILEY OM.

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-BFL	APP CRS	Rwy Idg	7429
111.9	301°	TDZE	490
Chan 56		Apt Elev	507

ILS or LOC/DME RWY 30R

BAKERSFIELD/MEADOWS FIELD (BFL)

Circling NA northeast of Rwy 12L-30R. If local altimeter setting not received, use Porterville altimeter setting and increase DA/MDAs 100 feet. VDP NA when using Porterville altimeter setting.

MALSR

MISSED APPROACH: Climb to 3000 to intercept EHF R-145 to EHF VORTAC and hold, continue climb-in-hold to 3000.

PORTERVILLE AWOS-3	ATIS	BAKERSFIELD APP CON	BAKERSFIELD TOWER★	GND CON	UNICOM
134.625	118.6	118.8 284.625 (SOUTH) 118.9 270.3 (NORTH)	118.1 (CTAF) 257.8	121.7	122.95

117.1 AVE Chan 118

R-072

352°/172°

R-172

IVECU

TTE 15

109.2 TTE Chan 29

Procedure NA for arrivals at AMONT via V459 and V165-197 southeast bound and arrivals on GMN VORTAC airway radials 297 CW 328.

R-324

144°/324°

3100 to JUPEX

125° (9.8)

SHAFTER 115.4 EHF Chan 101

LOCALIZER 111.9 I-BFL Chan 56

NILEY OM

1 min

301°/121°

R-344

(IAF) JUPEX I-BFL 7.4

(IF) FASTO INT I-BFL 14.7

4500 NoPT 301° (7.4)

2500 301° (7.4)

EHF R-124

4500 344° (14.4)

(IAF) AMONT I-BFL 22.2 RADAR

LEBEC GMN 13.6

117.5 FLW Chan 122

R-078

9000 NoPT 344° (13.6)

IAF GORMAN 116.1 GMN Chan 108

15 NM

MSA EHF 25 NM

180°

3400

8800

330°

ELEV 507

TWR 580

TDZE 490

12L 0.3% DOWN

12R

10855 X 150

7703 X 100

30R 0.3% UP

30L 0.3% UP

513

562

639±

A5

301° 6.1 NM from FAF

TDZ/CL Rwy 30R

HIRL Rwy 12L-30R

MIRL Rwy 12R-30L

3000

EHF R-145

EHF 115.4

Use I-BFL DME when on localizer course.

JUPEX I-BFL 7.4

One Minute Holding Pattern

2500

121°/301°

2500

GS 3.00° TCH 51

I-BFL 1.3

I-BFL 2.4

VGSI and ILS glidepath not coincident.

1.1 NM 5 NM

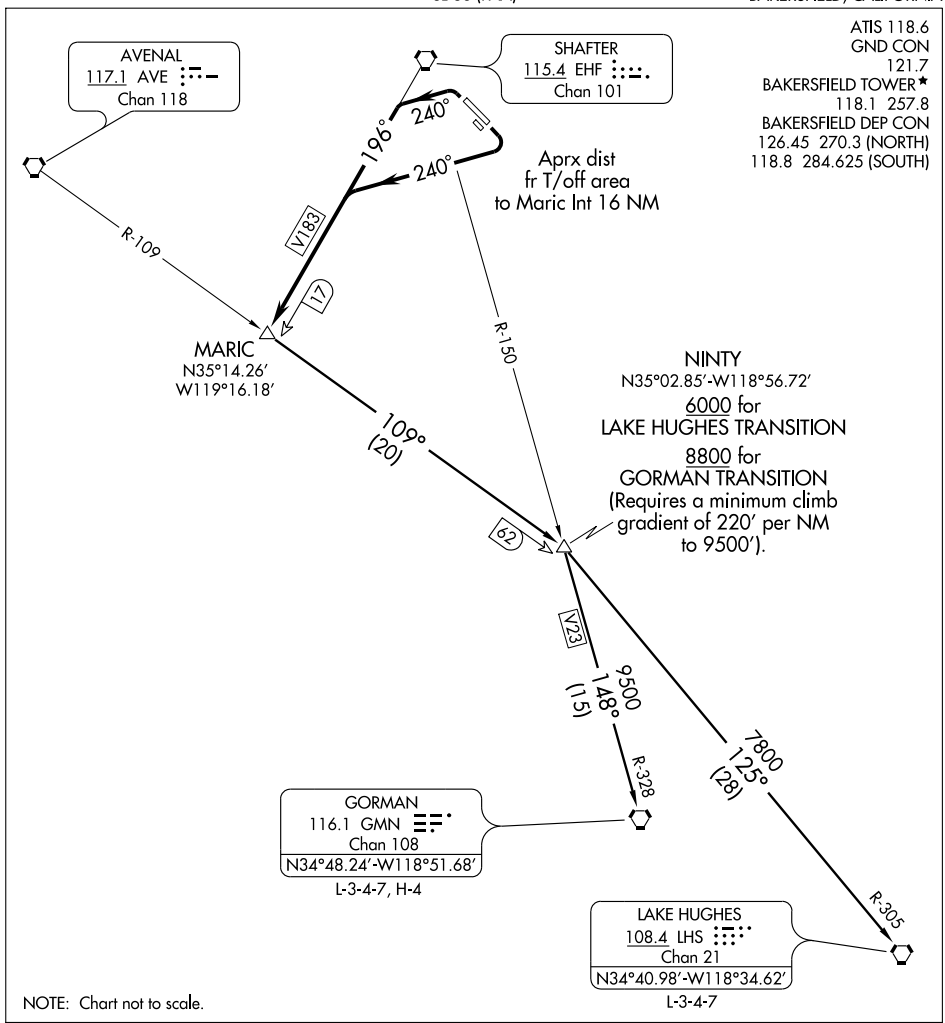
CATEGORY	A	B	C	D
S-ILS 30R	690/18 200 (200-½)			
S-LOC 30R	900/24 410 (400-½)		900/40 410 (400-¾)	
CIRCLING	920-1 413 (500-1)	960-1 453 (500-1)	960-1½ 453 (500-1½)	1060-2 553 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

MARIC THREE DEPARTURE

SL-36 (FAA)

BAKERSFIELD/ MEADOWS FIELD (BFL)
BAKERSFIELD, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 12L/R: Turn right heading 240°. Thence....

TAKE-OFF RUNWAYS 30L/R: Turn left heading 240°. Thence....

....intercept and proceed via the EHF R-196 to MARIC INT. Thence via (transition) or (assigned route).

GORMAN TRANSITION (MARIC3.GMN): From over MARIC INT via AVE R-109 and GMN R-328 to GMN VORTAC.

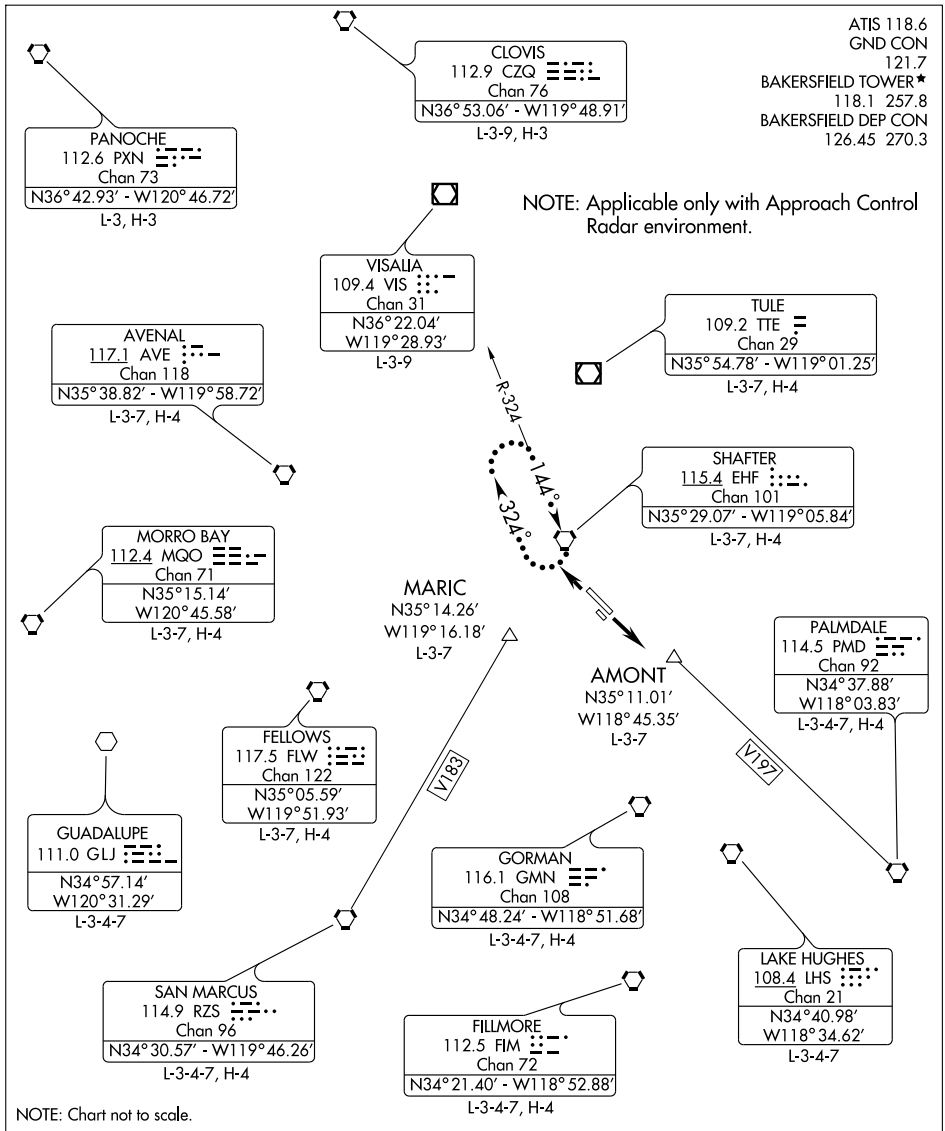
LAKE HUGHES TRANSITION (MARIC3.LHS): From over MARIC INT via AVE R-109 and LHS R-305 to LHS VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010

(MEADO1.MEADO) 08213
MEADOWS ONE DEPARTURE

SL-36 (FAA)

BAKERSFIELD/MEADOWS FIELD (BFL)
BAKERSFIELD, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF ALL RUNWAYS: Fly runway heading for vector to assigned route/fix. Expect clearance to requested altitude five minutes after departure.

LOST COMMUNICATIONS: If no radio contact for two minutes, proceed direct EHF VORTAC and hold. Climb in holding pattern to expected altitude prior to proceeding on course.

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy ldg	10855
121°	TDZE	507
	Apt Elev	507

RNAV (GPS) RWY 12L

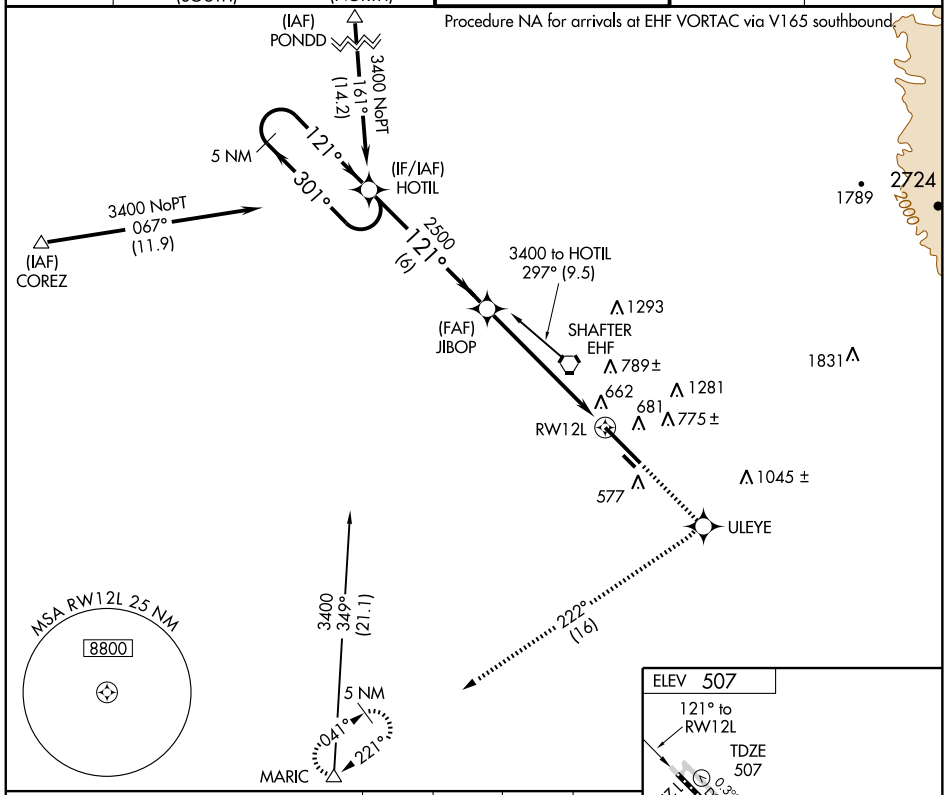
BAKERSFIELD/ MEADOWS FIELD (BFL)

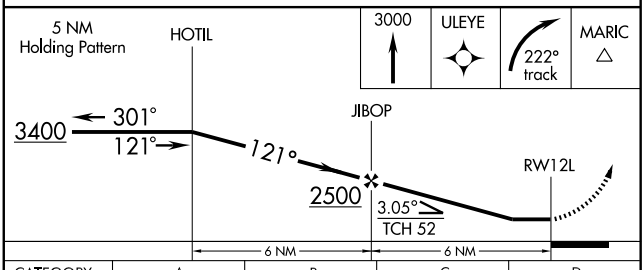
When local altimeter setting not received use Delano Muni altimeter setting and increase all MDA 80 feet and increase LNAV Cat D visibility ¼ mile.
Circling NA northeast of Rwy 12L-30R.
DME/DME RNP- 0.3 NA.

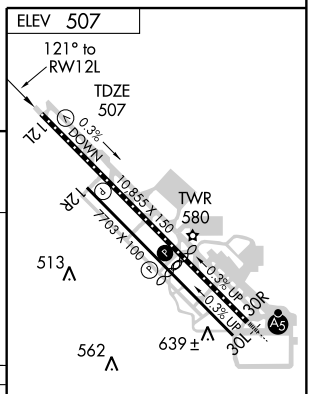
MISSED APPROACH: Climb to 3000 direct ULEYE and right turn via 222° track to MARIC and hold.

ATIS	BAKERSFIELD APP CON ★		BAKERSFIELD TOWER ★	GND CON	UNICOM
118.6	118.8 284.625 (SOUTH)	118.9 270.3 (NORTH)	118.1 (CTAF) L 257.8	121.7	122.95

Procedure NA for arrivals at EHF VORTAC via V165 southbound.







CATEGORY	A	B	C	D
LNAV MDA	920-1 413 (500-1)		920-1¼ 413 (500-1¼)	
CIRCLING	920-1 413 (500-1)	960-1 453 (500-1)	960-1½ 453 (500-1½)	1060-2 553 (600-2)

TDZ/CL Rwy 30R
HIRL Rwy 12L-30R L
MIRL Rwy 12R-30L

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	7429
301°	TDZE	490
	Apt Elev	507

RNAV (GPS) RWY 30R

BAKERSFIELD/MEADOWS FIELD (BFL)

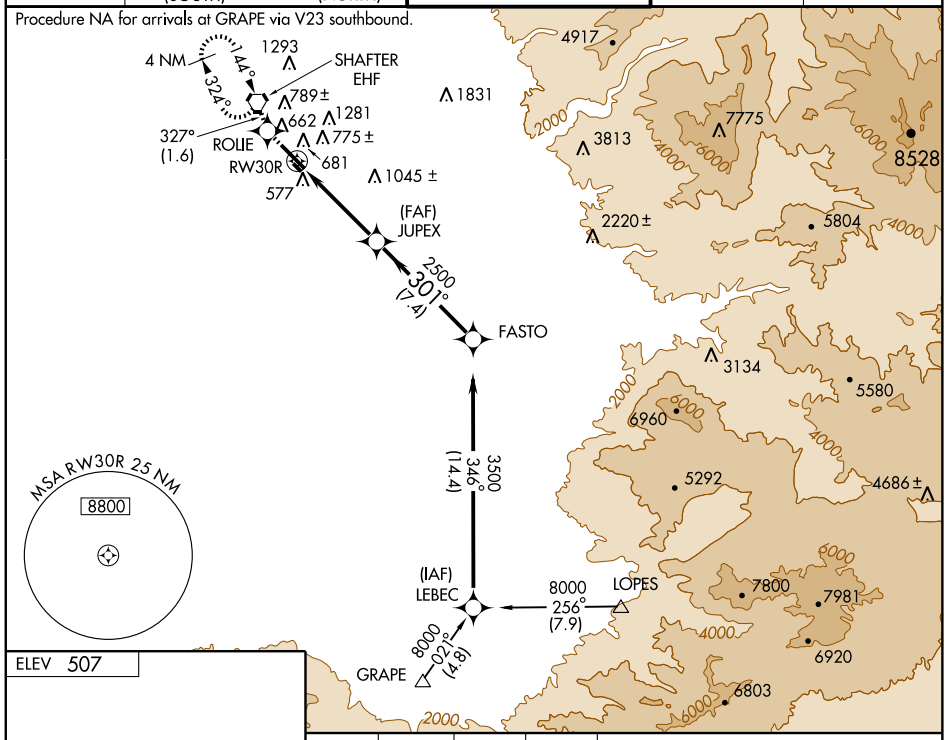
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA. Circling not authorized northeast of Rwy 12L-30R. Baro/VNAV NA below -16°C (3°F)

MALSR

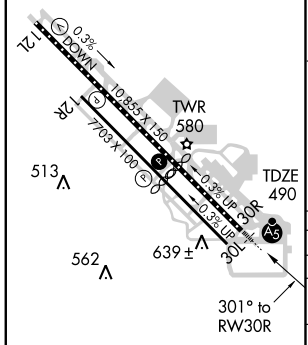
MISSED APPROACH: Climb to 3000 direct ROLIE WP and via 327° track to EHF VORTAC and hold.

ATIS	BAKERSFIELD APP CON	BAKERSFIELD TOWER ★	GND CON	UNICOM
118.6	118.8 284.625 (SOUTH) 118.9 270.3 (NORTH)	118.1 (CTAF) L 257.8	121.7	122.95

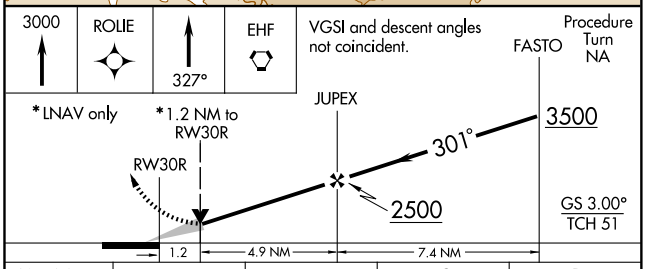
Procedure NA for arrivals at GRAPE via V23 southbound.



ELEV 507



TDZ/CL Rwy 30R
HIRL Rwy 12L-30R L
MIRL Rwy 12R-30L



CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	940/50 450 (500-1)			
LNAV MDA	940/24 450 (500-½)		940/40 450 (500-¾)	940/50 450 (500-1)
CIRCLING	940-1½ 433 (500-1½)	960-1½ 453 (500-1½)		1060-2 553 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC EHF	APP CRS	Rwy Idg	N/A
115.4	137°	TDZE	N/A
Chan 101		Apt Elev	507

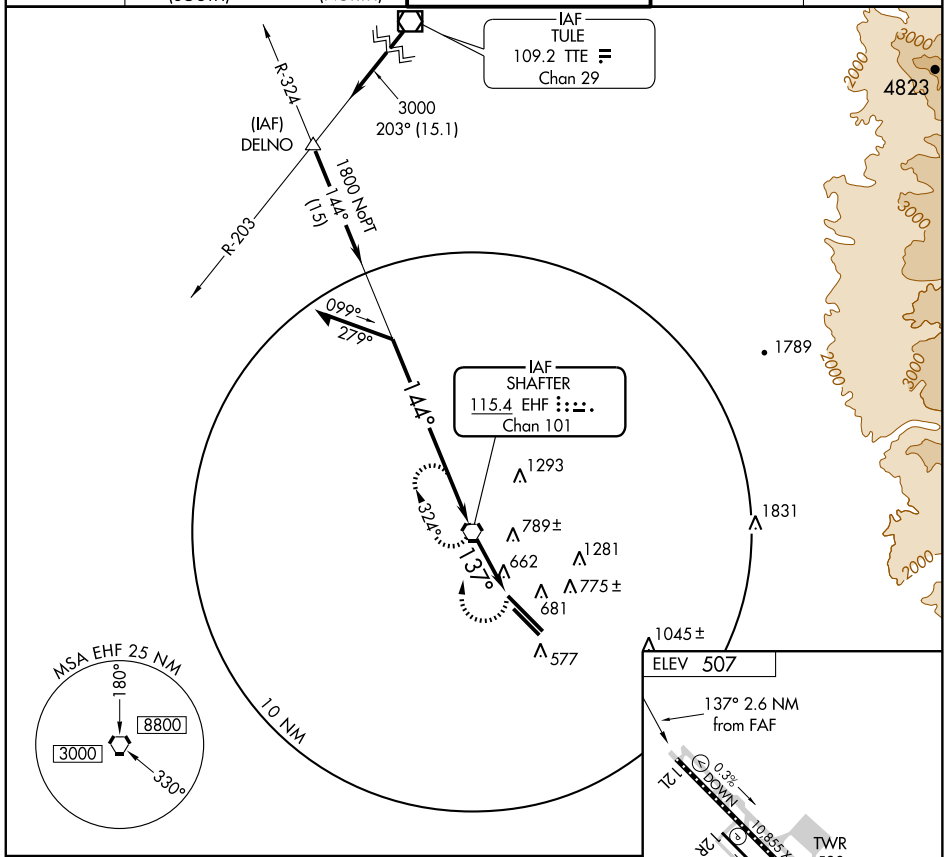
VOR-A

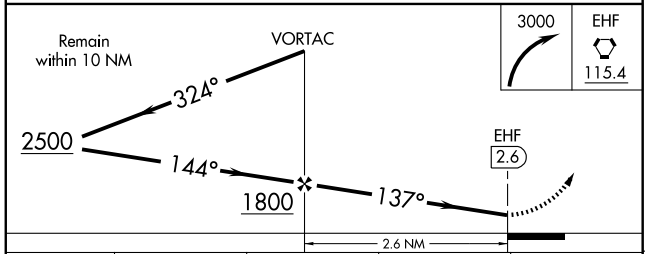
BAKERSFIELD/MEADOWS FIELD (BFL)

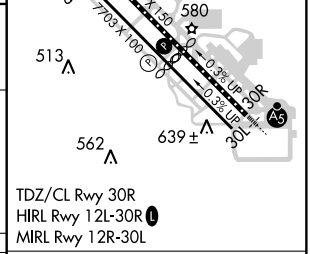
Circling not authorized northeast of Rwy 12L-30R.

MISSED APPROACH: Climbing right turn to 3000 direct EHF VORTAC and hold.

ATIS	BAKERSFIELD APP CON	BAKERSFIELD TOWER ★	GND CON	UNICOM
118.6	118.8 284.625 (SOUTH) 118.9 270.3 (NORTH)	118.1 (CTAF) L 257.8	121.7	122.95







CATEGORY	A	B	C	D
CIRCLING	1000-1	493 (500-1)	1000-1½ 493 (500-1½)	1060-2 553 (600-2)

FAF to MAP 2.6 NM					
Knots	60	90	120	150	180
Min:Sec	2:36	1:44	1:18	1:02	0:52

SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC EHF	APP CRS	Rwy Idg	7429
115.4	311°	TDZE	490
Chan 101		Apt Elev	507

VOR/DME RWY 30R

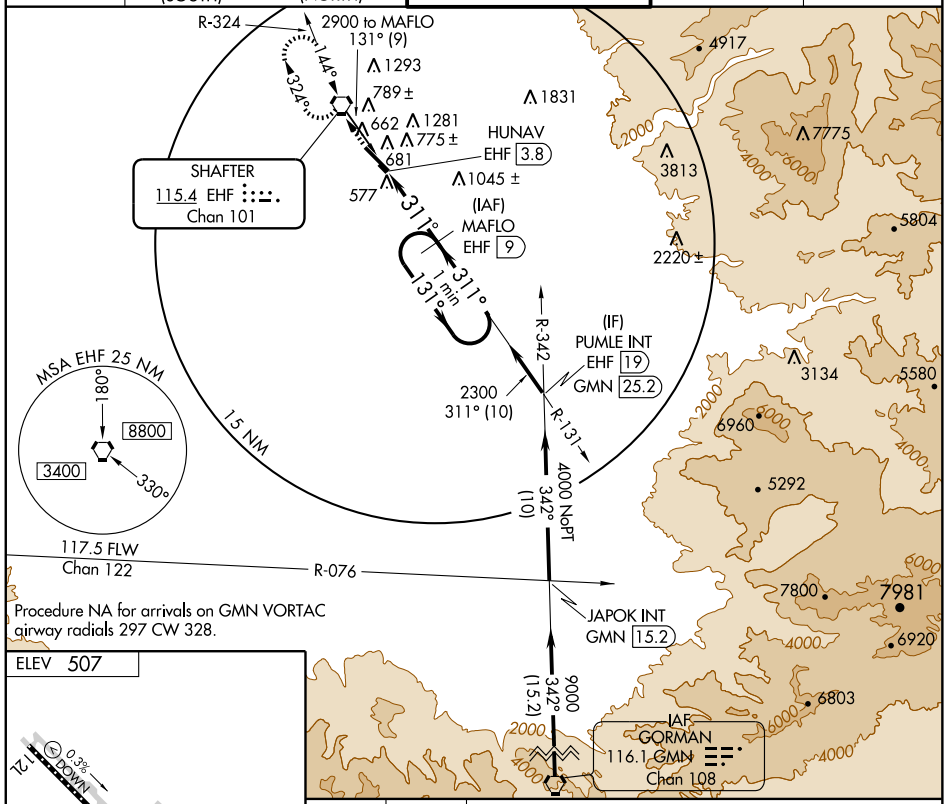
BAKERSFIELD/MEADOWS FIELD (BFL)

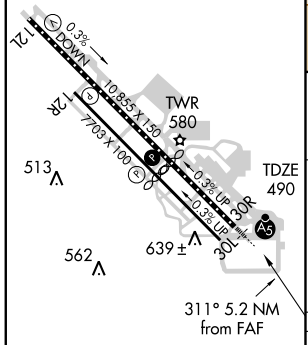
Circling NA northeast of Rwy 12L-30R.
If local altimeter setting not received, use Porterville altimeter setting and increase all MDAs 100 feet.

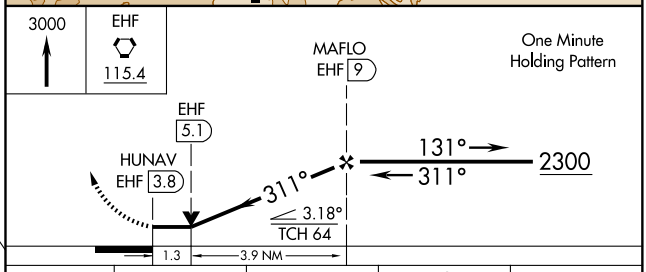
MALSR

MISSED APPROACH: Climb to 3000 direct EHF VORTAC and hold, continue climb-in-hold to 3000.

ATIS	BAKERSFIELD APP CON	BAKERSFIELD TOWER ★	GND CON	UNICOM
118.6	118.8 284.625 (SOUTH) 118.9 270.3 (NORTH)	118.1 (CTAF) L 257.8	121.7	122.95







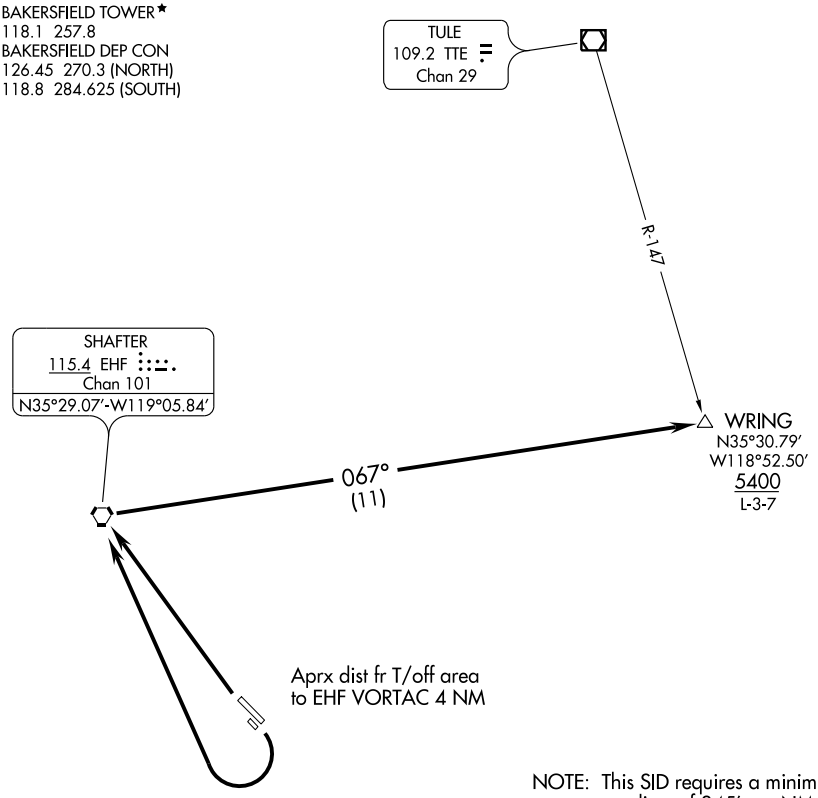
CATEGORY	A	B	C	D
S-30R	960/24	470 (500-½)	960/40 470 (500-¾)	960/50 470 (500-1)
CIRCLING	960-1	453 (500-1)	960-1½ 453 (500-1½)	1060-2 553 (600-2)

TDZ/CL Rwy 30R
HIRL Rwy 12L-30R L
MIRL Rwy 12R-30L

SW-3, 14 JAN 2010 to 11 FEB 2010

WRING THREE DEPARTURE

ATIS 118.6
GND CON
121.7
BAKERSFIELD TOWER★
118.1 257.8
BAKERSFIELD DEP CON
126.45 270.3 (NORTH)
118.8 284.625 (SOUTH)



NOTE: This SID requires a minimum climb gradient of 345′ per NM to 5400′.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 12L/R: As soon as practical after take-off, make climbing right turn direct EHF VORTAC. Thence....

TAKE-OFF RUNWAYS 30L/R: Climb direct EHF VORTAC. Thence....

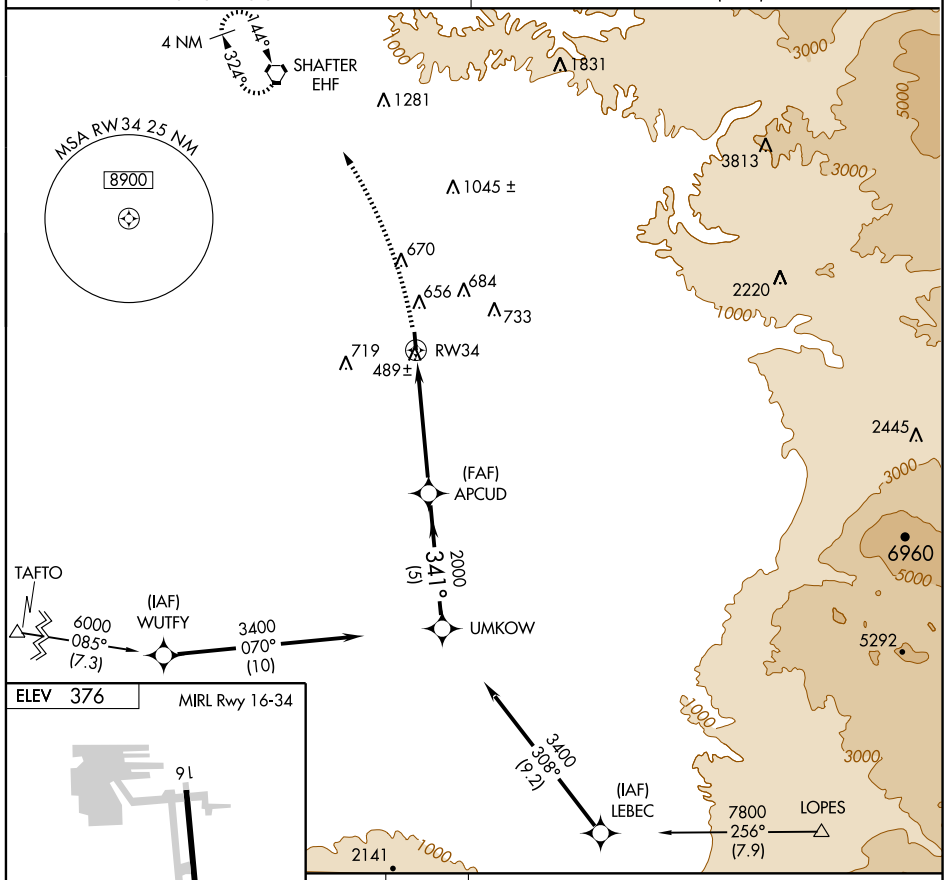
....From over EHF VORTAC via EHF R-067 to WRING INT. Then via (assigned route).

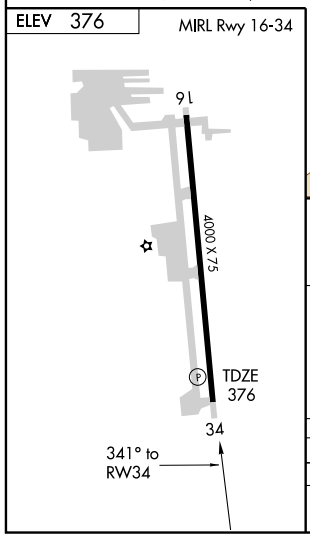
BAKERSFIELD, CALIFORNIA AL-9118 (FAA)

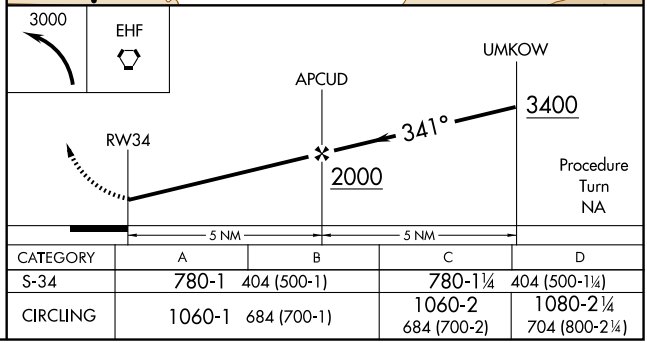
APP CRS	Rwy Idg	4000
341°	TDZE	376
	Apt Elev	376

GPS RWY 34
BAKERSFIELD MUNI (L45)

NA Use Meadows Field altimeter setting.	MISSED APPROACH: Climbing left turn to 3000 direct EHF VORTAC and hold.
BAKERSFIELD APP CON ★ 126.45 270.3	UNICOM 122.8 (CTAF)







CATEGORY	A	B	C	D
S-34	780-1 404 (500-1)		780-1¼ 404 (500-1¼)	
CIRCLING	1060-1 684 (700-1)		1060-2 684 (700-2)	1080-2¼ 704 (800-2¼)

SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC EHF	APP CRS	Rwy Idg	4000
115.4	320°	TDZE	376
Chan 101		Apt Elev	376

VOR/DME RWY 34

BAKERSFIELD MUNI (L45)

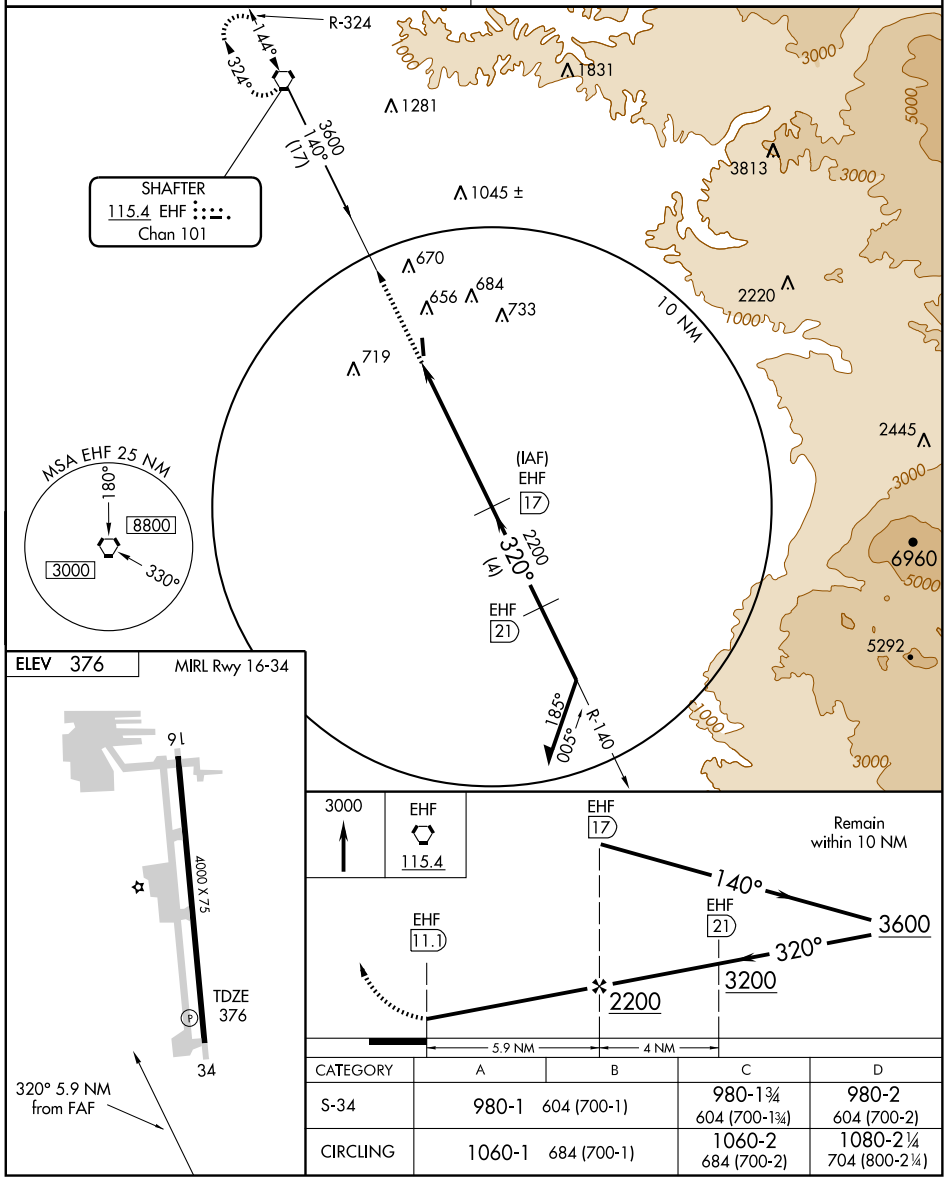
T
NA

Use Meadows Field altimeter setting.

MISSED APPROACH: Climb to 3000 direct EHF VORTAC and hold.

BAKERSFIELD APP CON ★
126.45 270.3

UNICOM
122.8 (CTAF)



CATEGORY	A	B	C	D
S-34	980-1	604 (700-1)	980-1¾ 604 (700-1¾)	980-2 604 (700-2)
CIRCLING	1060-1	684 (700-1)	1060-2 684 (700-2)	1080-2¼ 704 (800-2¼)

SW-3, 14 JAN 2010 to 11 FEB 2010

BECKWOURTH, CALIFORNIA

AL-10032 (FAA)

APP CRS	Rwy Idg	4651
266°	TDZE	4896
	Apt Elev	4900

RNAV (GPS) Y RWY 25

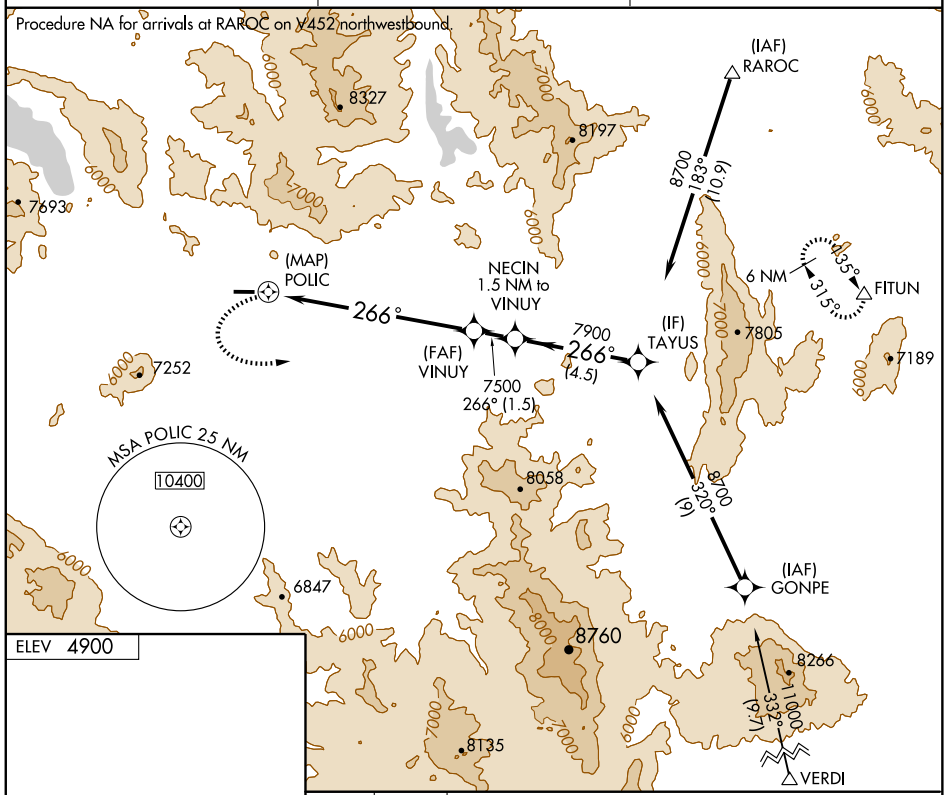
BECKWOURTH/NERVINO (O02)

DME/DME RNP- 0.3 NA.
Use Reno/Stead altimeter setting; if not received, use Reno/Tahoe Intl altimeter setting and increase all MDAs 180 feet.
Circling NA at night

MISSED APPROACH: Climbing left turn to 10000 direct FITUN and hold.

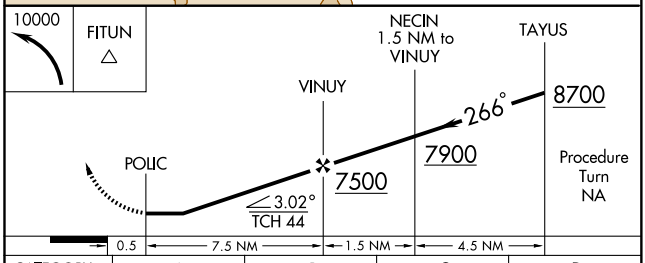
RENO/STEAD AWOS-3	RENO APP CON	UNICOM
135.175	126.3	122.8 (CTAF) L

Procedure NA for arrivals at RAROC on V452 northwestbound.



ELEV 4900

MIRL Rwy 7-25 L



CATEGORY	A	B	C	D
LNAV MDA	7300-1¼ 2404 (2400-1¼)	7300-1½ 2404 (2400-1½)	7300-3 2404 (2400-3)	
CIRCLING	7300-1¼ 2400 (2400-1¼)	7300-1½ 2400 (2400-1½)	7300-3 2400 (2400-3)	

SW-2, 14 JAN 2010 to 11 FEB 2010

BECKWOURTH, CALIFORNIA

AL-10032 (FAA)

WAAS	APP CRS	Rwy Idg	4651
CH 49203	255°	TDZE	4896
W25A		Apt Elev	4900

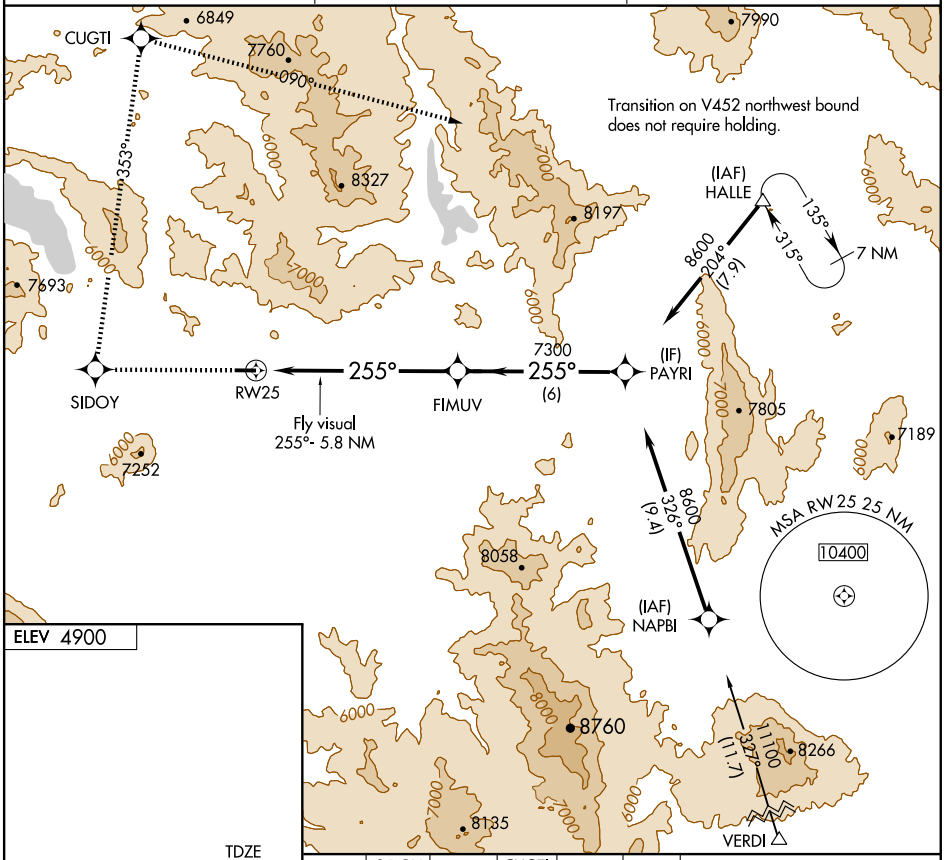
RNAV (GPS) Z RWY 25

BECKWOURTH/NERVINO (0Ø2)

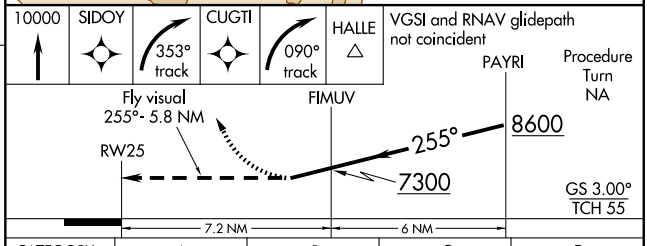
T Use Reno/Stead altimeter setting; if not received, use Reno/Tahoe Intl altimeter setting and increase DA 166 feet.
NA DME/DME RNP -0.3 NA.
W Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 10000 direct SIDOY and right turn via 353° track to CUGTI, and right turn 090° track to HALLE and hold.

RENO/STEAD AWOS-3	RENO APP CON	UNICOM
135.175	126.3	122.8 (CTAF) L



ELEV 4900



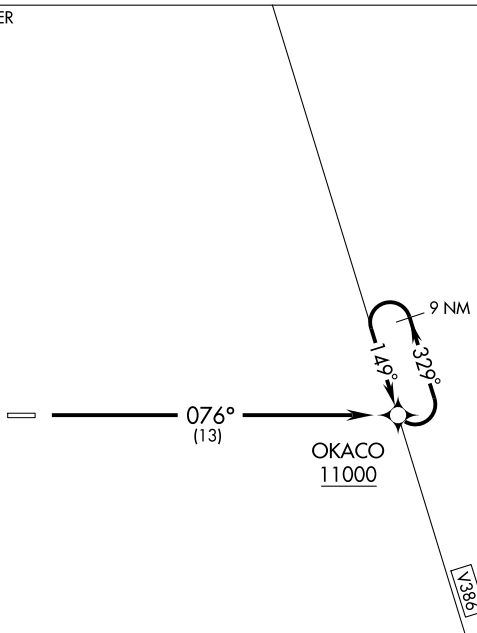
CATEGORY	A	B	C	D
LPV DA	6787-2 1891 (1900-2)		6787-3 1891 (1900-3)	

MIRL Rwy 7-25 L

SW-2, 14 JAN 2010 to 11 FEB 2010

OKACO ONE DEPARTURE (RNAV) (OBSTACLE)

LOS ANGELES CENTER
126.35 290.2
UNICOM 122.725



NOTE: TAKE-OFF MINIMUMS: Rwy 8: 1200-2 or standard with minimum climb of 282′ per NM to 8000′.

NOTE: For use by slant E, F, and G equipped aircraft only.

NOTE: 7439′ MSL trees 2.5 NM from departure end of runway, 2400′ right of centerline.

NOTE: 1. GPS required
2. RNAV 1

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 8: Climb via course 076° to OKACO WP; maintain 11,000′ or as assigned by ATC. If not at 11,000′ or at assigned cruising altitude upon reaching OKACO WP, climb in holding pattern (hold NW, LT, 149° inbound), unless otherwise advised by ATC.

APP CRS		
256°	Rwy Idg	5250
	TDZE	6748
	Apt Elev	6748

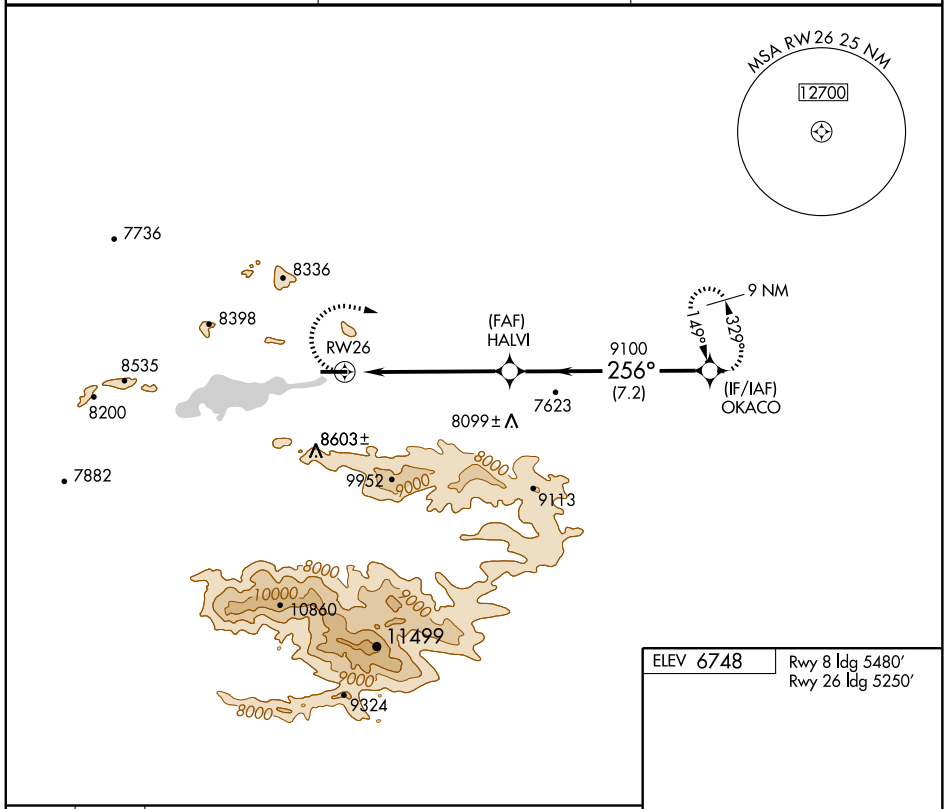
RNAV (GPS) RWY 26

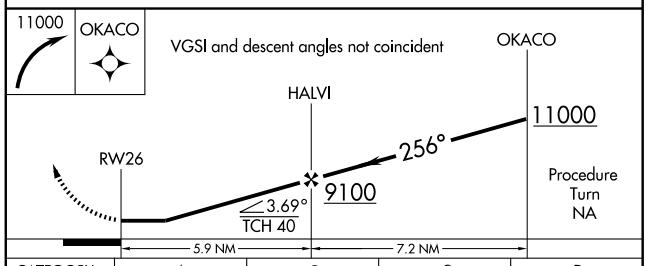
BIG BEAR CITY (L35)

If local altimeter setting not received procedure NA.
Circling NA north of Rwy 8-26, procedure NA at night.
DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climbing right turn to 11000 direct OKACO and hold.

AWOS-3	LOS ANGELES CENTER	UNICOM
135.925	126.35 290.2	122.725 (CTAF) L

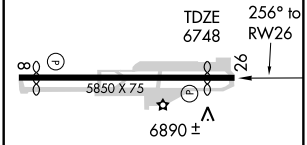




CATEGORY	A	B	C	D
LNAV MDA	8680-1¼ 1932 (2000-1¼)	8680-1½ 1932 (2000-1½)	NA	
CIRCLING	8680-1¼ 1932 (2000-1¼)	8680-1½ 1932 (2000-1½)	NA	

ELEV 6748

Rwy 8 ldg 5480′
Rwy 26 ldg 5250′



MIRL Rwy 8-26 L

BISHOP, CALIFORNIA

AL-5737 (FAA)

LOC/DME I-BIH	APP CRS	Rwy Idg	5600
109.1	141°	TDZE	4113
Chan 28		Apt Elev	4124

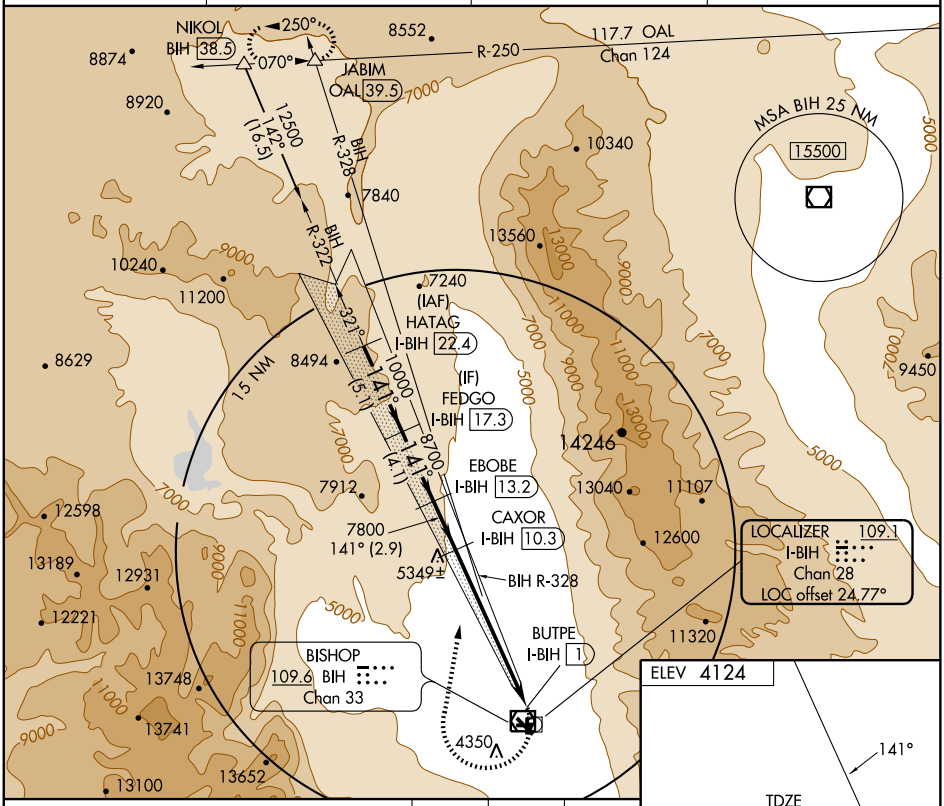
LDA/DME RWY 16

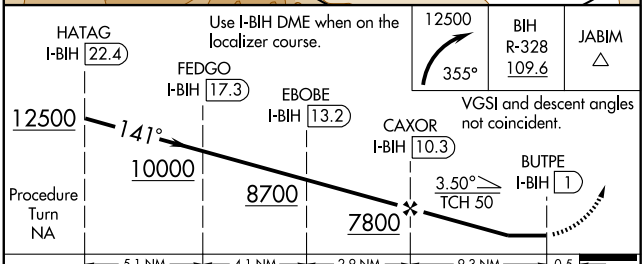
BISHOP / EASTERN SIERRA RGNL (BIH)

Visibility reduction by helicopters NA.

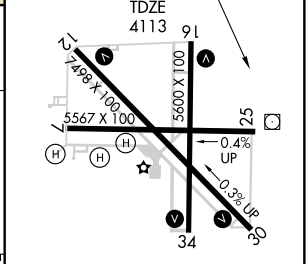
MISSED APPROACH: Climbing right turn to 12500 via heading 355° and via BIH VOR/DME R-328 to JABIM INT/OAL 39.5 DME and hold.

ASOS	OAKLAND CENTER	RIVERSIDE RADIO	UNICOM
119.025	125.75 284.65	122.6	123.0 (CTAF) L





CATEGORY	A	B	C	D
S-16	6340-1¼ 2227 (2300-1¼)	6340-1½ 2227 (2300-1½)	6340-3 2227 (2300-3)	
CIRCLING	6340-1¼ 2216 (2300-1¼)	6340-1½ 2216 (2300-1½)	6340-3 2216 (2300-3)	



MIRL Rwy 7-25 L

HIRL Rwys 12-30 and 16-34 L

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	7498
120°	TDZE	4123
	Apt Elev	4124

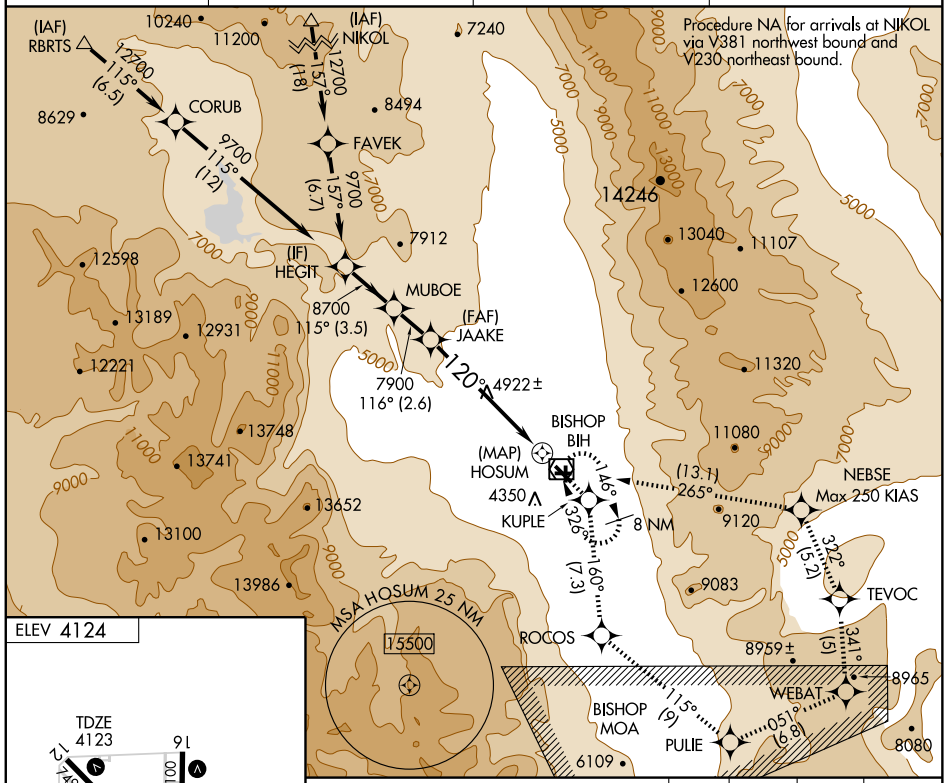
RNAV (GPS) Y RWY 12

BISHOP / EASTERN SIERRA RGNL (BIH)

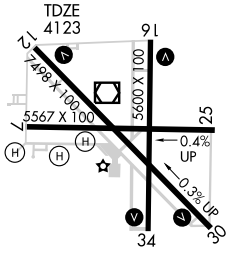
When local altimeter setting not received, procedure NA.
Visibility reduction by helicopters NA.
DME/DME RNP-0.3 NA

MISSED APPROACH: (Do not exceed 250 KIAS until NEBSE) Climb to 13000 direct KUPLE, and 160° track to ROCOS, and 115° track to PULIE, and 051° track to WEBAT, and 341° track to TEVOC, and 322° track to NEBSE, and 265° track to BIH VOR/DME and hold.

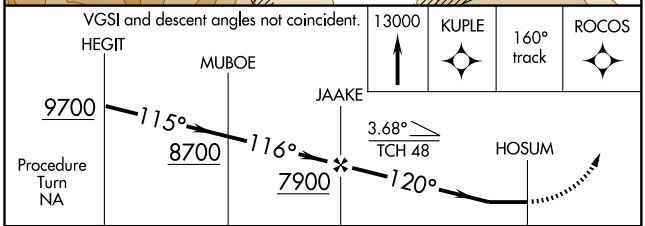
ASOS	OAKLAND CENTER	RIVERSIDE RADIO	UNICOM
119.025	125.75 284.65	122.6	123.0 (CTAF) L



ELEV 4124



MIRL Rwy 7-25 L
HIRL Rwys 12-30 and 16-34 L



CATEGORY	A	B	C	D
LNAV MDA	6600-1¼ 2477 (2500-1¼)	6600-1½ 2477 (2500-1½)	6600-3 2477 (2500-3)	NA
CIRCLING	6600-1¼ 2476 (2500-1¼)	6600-1½ 2476 (2500-1½)	6600-3 2476 (2500-3)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	7498
120°	TDZE	4123
	Apt Elev	4124

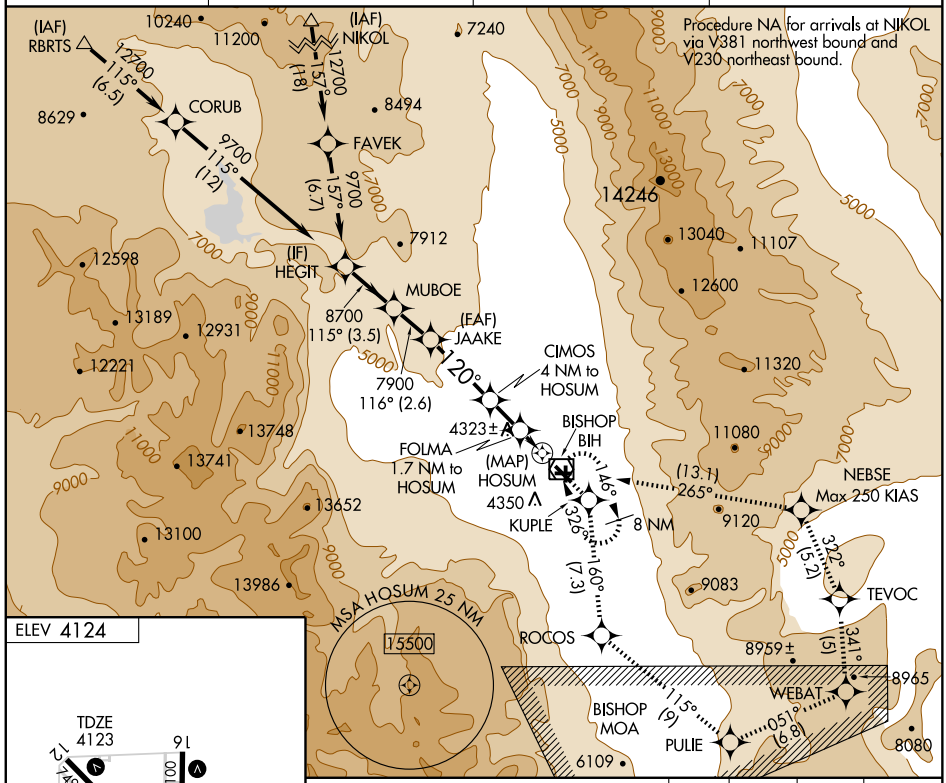
RNAV (GPS) Z RWY 12

BISHOP / EASTERN SIERRA RGNL (BIH)

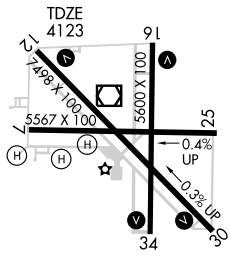
When local altimeter setting not received, procedure NA.
*Missed approach requires minimum climb of 325 feet per NM to 11000; if unable, see RNAV (GPS) Y RWY 12.
Visibility reduction by helicopters NA.
DME/DME RNP-0.3 NA

MISSED APPROACH: (Do not exceed 250 KIAS until NEBSE) Climb to 13000 direct KUPLE, and 160° track to ROCOS, and 115° track to PULIE, and 051° track to WEBAT, and 341° track to TEVOC, and 322° track to NEBSE, and 265° track to BIH VOR/DME and hold.

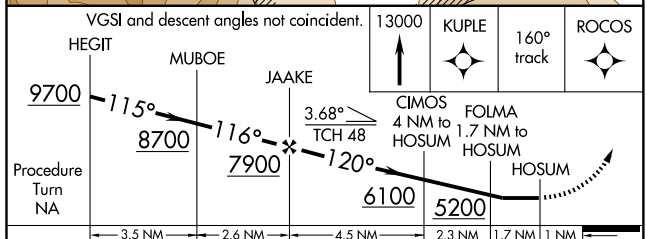
ASOS	OAKLAND CENTER	RIVERSIDE RADIO	UNICOM
119.025	125.75 284.65	122.6	123.0 (CTAF) L



ELEV 4124



MIRL Rwy 7-25 L
HIRL Rwys 12-30 and 16-34 L



CATEGORY	A	B	C	D
LNAV MDA*	4580-1¼ 457 (500-1¼)			NA
CIRCLING	6420-1¼ 2296 (2300-1¼)	6420-1½ 2296 (2300-1½)	6420-3 2296 (2300-3)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	7498
301°	TDZE	4111
	Apt Elev	4124

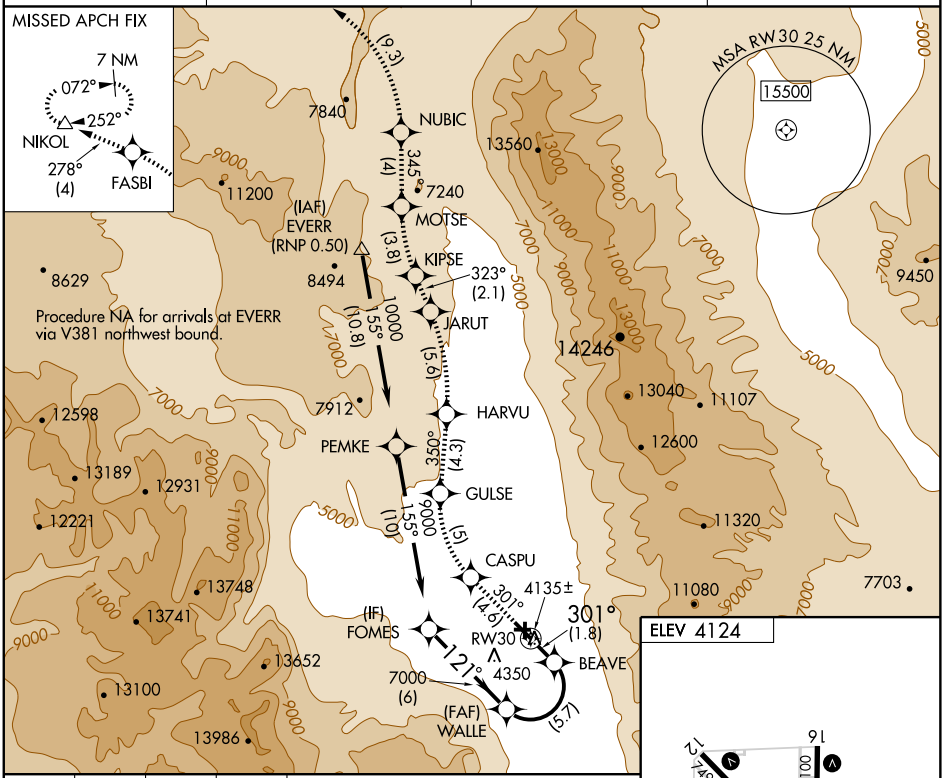
RNAV (RNP) RWY 30

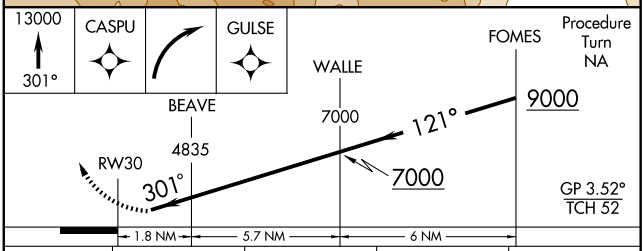
BISHOP / EASTERN SIERRA RGNL (BIH)

RF and GPS required.
NA When local altimeter setting not received, procedure NA.
For uncompensated Baro-VNAV systems, procedure NA below -12°C (11°F) or above 38°C (100°F).
Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 13000 via 301° track to CASPU, right turn to GULSE, 350° track to HARVU, left turn to JARUT, 323° track to KIPSE, right turn to MOTSE, 345° track to NUBIC, left turn to FASBI, 278° track to NIKOL and hold.

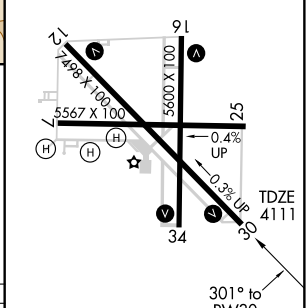
ASOS	OAKLAND CENTER	RIVERSIDE RADIO	UNICOM
119.025	125.75 284.65	122.6	123.0 (CTAF) L





CATEGORY	A	B	C	D
RNP 0.30 DA	4434-1	323 (400-1)		NA

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED



MIRL Rwy 7-25 L
HIRL Rwys 12-30 and 16-34 L

SW-2, 14 JAN 2010 to 11 FEB 2010

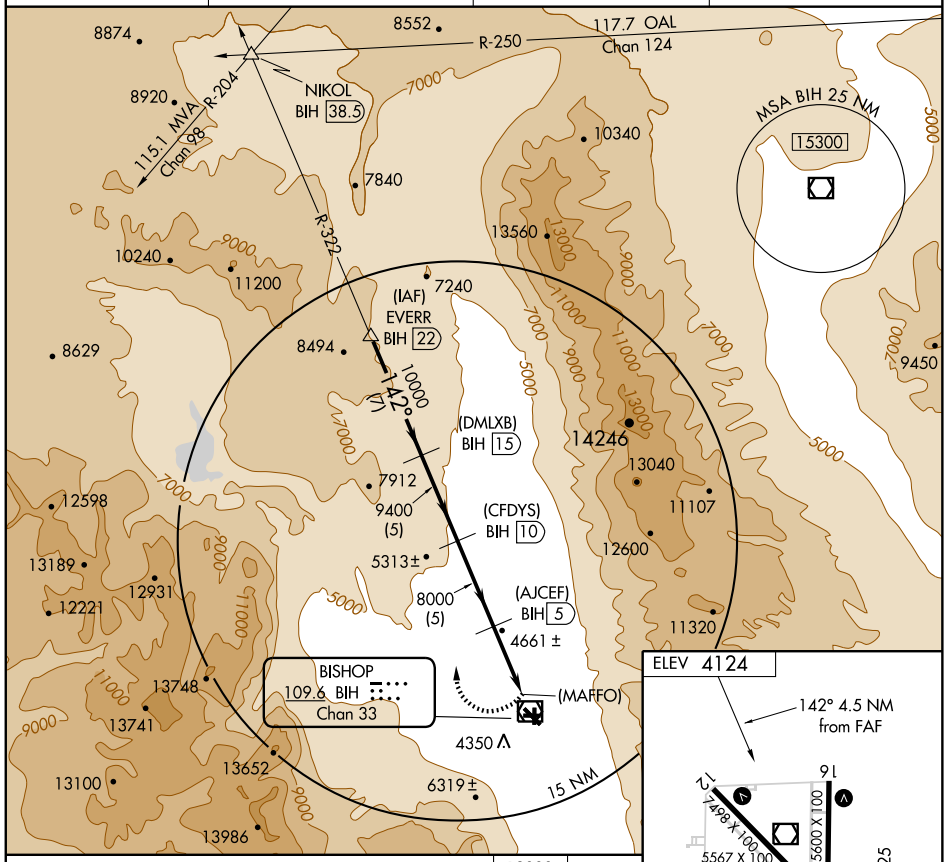
VOR/DME BIH	APP CRS	Rwy Idg	N/A
109.6	142°	TDZE	N/A
Chan 33		Apt Elev	4124

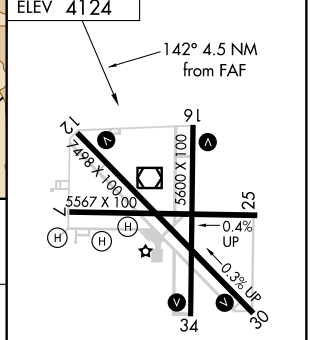
VOR/DME or GPS-B

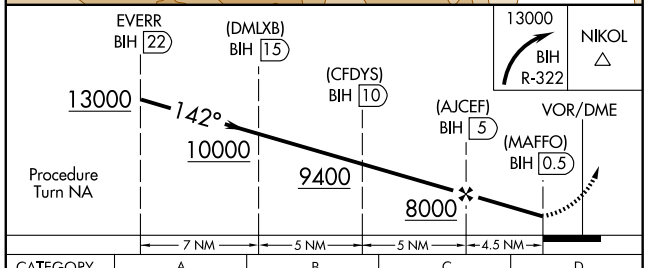
BISHOP / EASTERN SIERRA RGNL (BIH)

MISSED APPROACH: Climbing right turn to 13000 via BIH R-322 to NIKOL INT/BIH 38.5 DME.

ASOS	OAKLAND CENTER	RIVERSIDE RADIO	UNICOM
119.025	125.75 284.65	122.6	123.0 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	7300-1¼ 3176 (3200-1¼)	7300-1½ 3176 (3200-1½)	7300-3	3176 (3200-3)

MIRL Rwy 7-25 L
HIRL Rwys 12-30 and 16-34 L

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME BIH	APP CRS	Rwy Idg	N/A
109.6	142°	TDZE	N/A
Chan 33		Apt Elev	4120

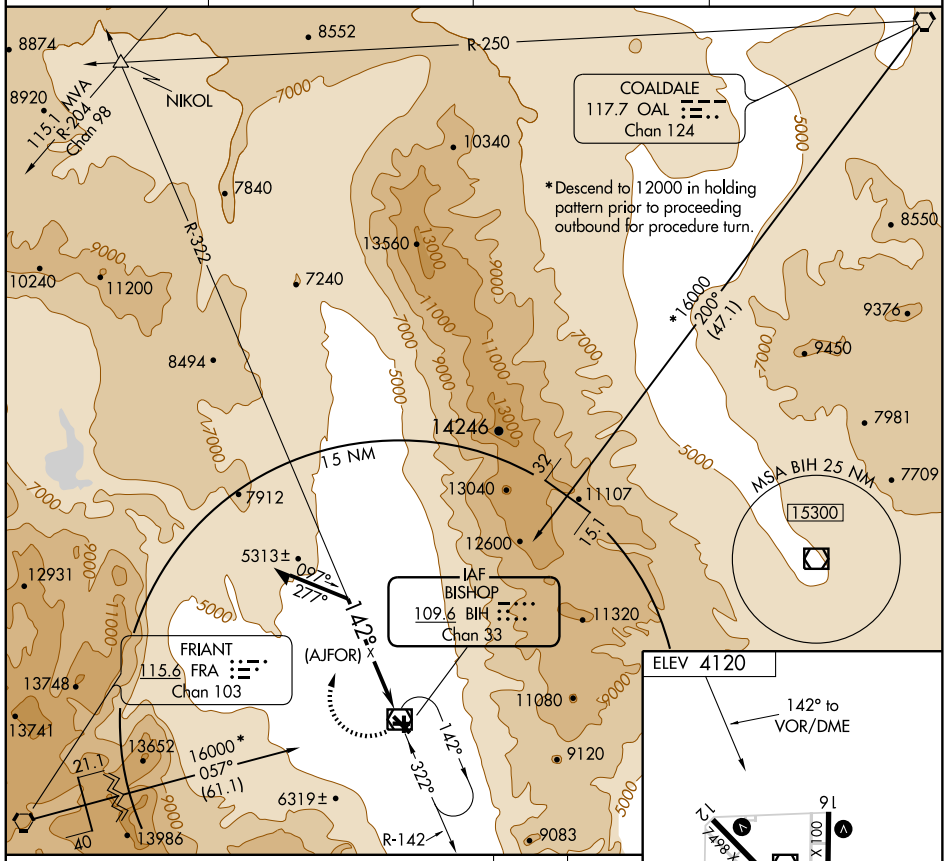
VOR or GPS-A

BISHOP / EASTERN SIERRA RGNL (BIH)

If local altimeter setting not received, procedure not authorized.

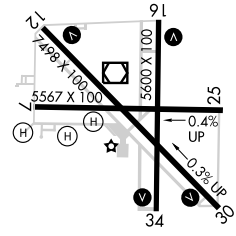
MISSED APPROACH: Climbing right turn to 13000 via BIH R-322 to NIKOL Int.

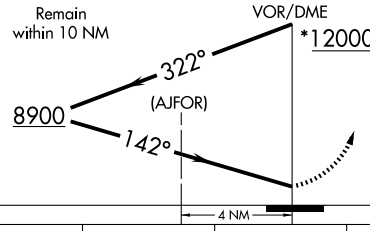
ASOS	OAKLAND CENTER	RIVERSIDE RADIO	UNICOM
119.025	125.75 284.65	122.6	123.0 (CTAF) L



ELEV 4120

142° to VOR/DME





13000 BIH R-322 NIKOL

* Descend to 12000 in holding pattern prior to proceeding outbound for procedure turn.

CATEGORY	A	B	C	D
CIRCLING	7400-1¼ 3280 (3300-1¼)	7400-1½ 3280 (3300-1½)	7400-3 3280 (3300-3)	

MIRL Rwy 7-25 L
HIRL Rwys 12-30 and 16-34 L

SW-2, 14 JAN 2010 to 11 FEB 2010

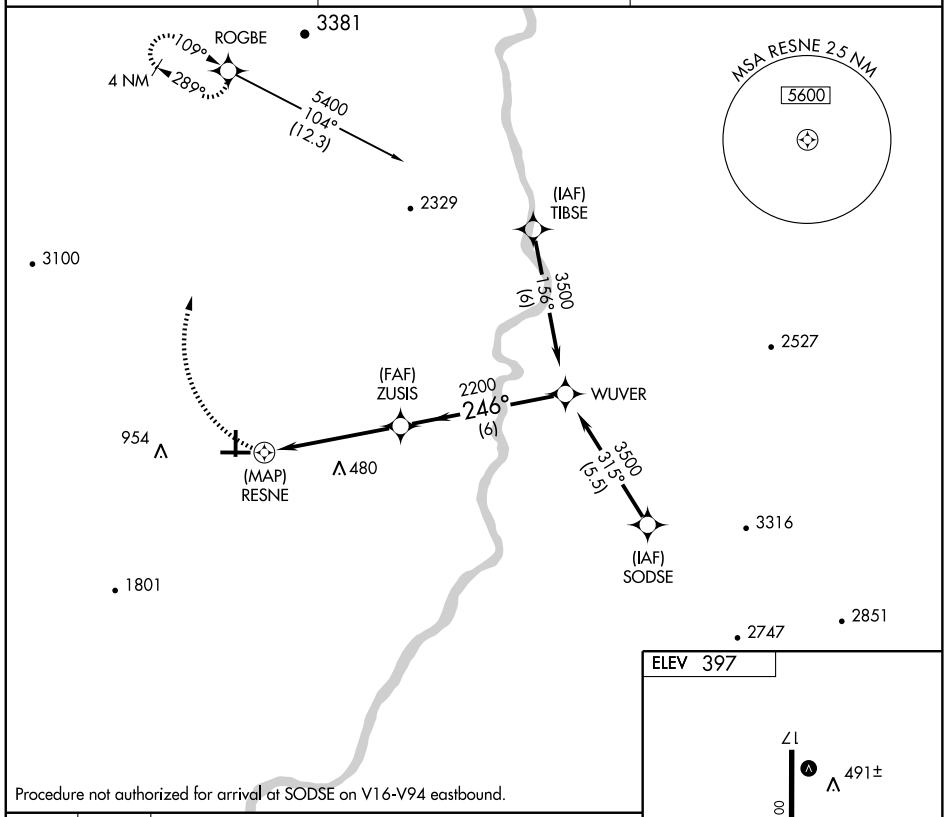
APP CRS	Rwy Idg	6543
246°	TDZE	394
	Apt Elev	397

RNAV (GPS) RWY 26
BLYTHE (BLH)

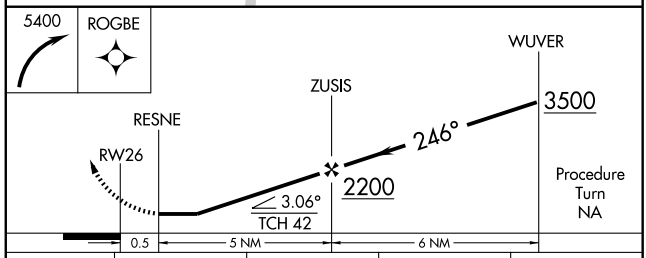
DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climbing right turn to 5400 direct ROGBE WP and hold.

ASOS	LOS ANGELES CENTER	UNICOM
120.175	128.15 285.6	122.8 (CTAF) L

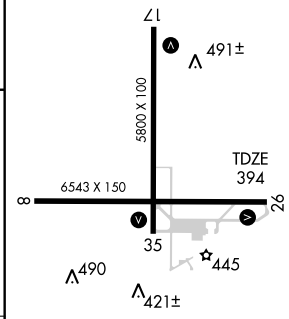


Procedure not authorized for arrival at SODSE on V16-V94 eastbound.



CATEGORY	A	B	C	D
LNAV MDA	760-1 366 (400-1)			760-1¼ 366 (400-1¼)
CIRCLING	840-1 443 (500-1)	860-1 463 (500-1)	960-1½ 563 (600-1½)	1260-2¾ 863 (900-2¾)

ELEV 397



MIRL Rwys 8-26 and 17-35 L

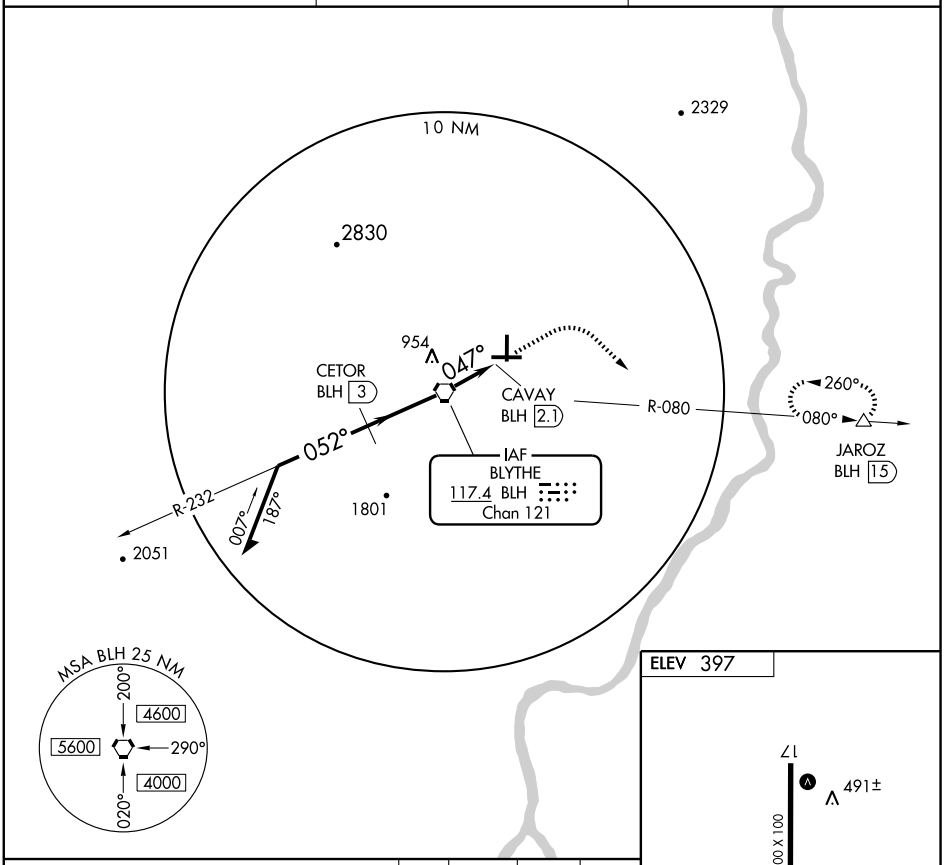
SW-3, 14 JAN 2010 to 11 FEB 2010

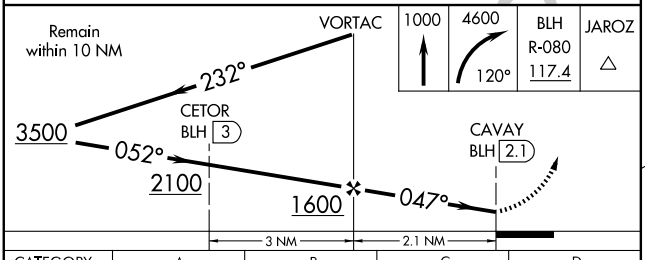
VORTAC BLH 117.4 Chan 121	APP CRS 047°	Rwy Idg N/A TDZE N/A Apt Elev 397

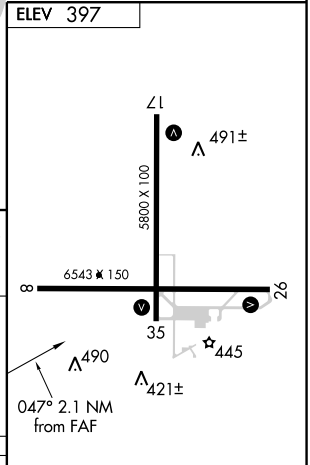
VOR/DME-A
BLYTHE (BLH)

MISSED APPROACH: Climb to 1000, then climbing right turn to 4600 via heading 120° and BLH R-080 outbound to JAROZ/15 DME and hold.

ASOS	LOS ANGELES CENTER	UNICOM
120.175	128.15 285.6	122.8 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	840-1 443 (500-1)	860-1 463 (500-1)	960-1½ 563 (600-1½)	1260-2¾ 863 (900-2¾)

MIRL Rwys 8-26 and 17-35 L

SW-3, 14 JAN 2010 to 11 FEB 2010

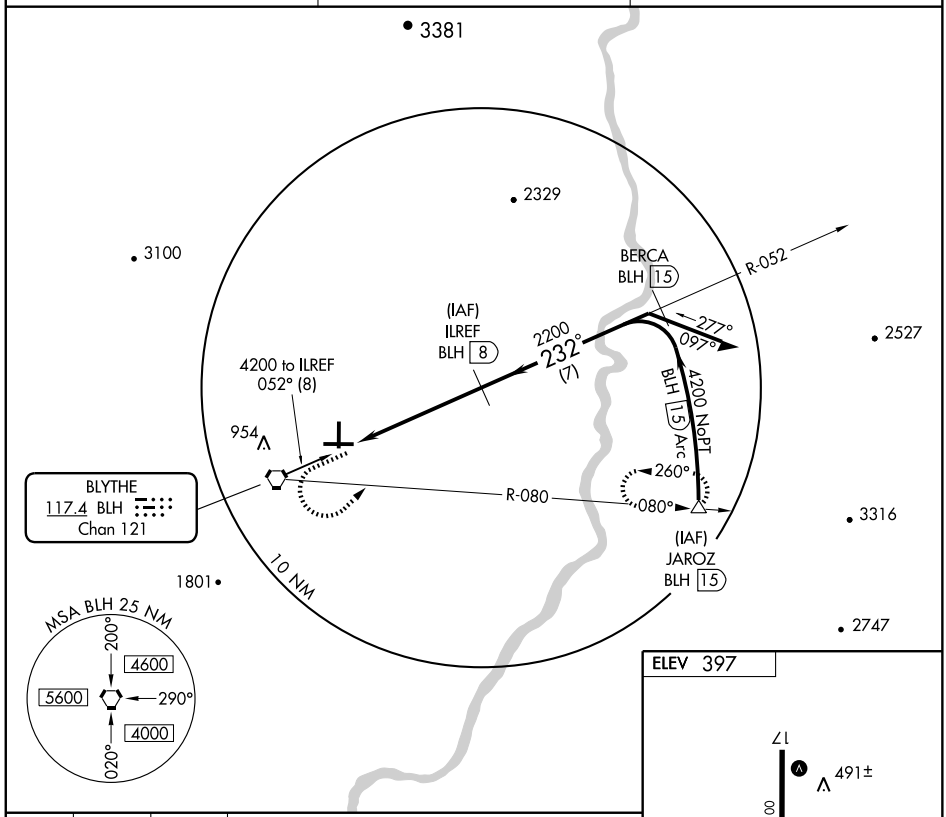
VORTAC BLH 117.4 Chan 121	APP CRS 232°	Rwy Idg 6543 TDZE 394 Apt Elev 397

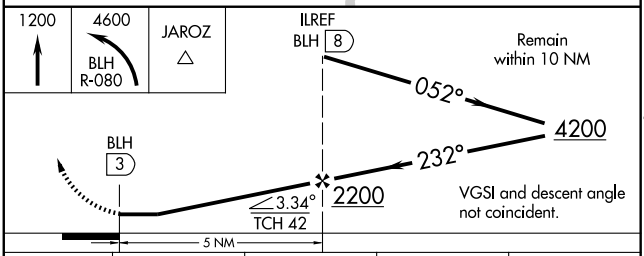
VOR/DME RWY 26

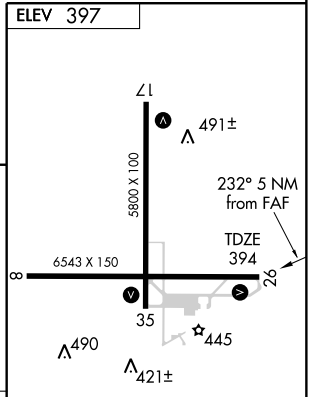
BLYTHE (BLH)

MISSED APPROACH: Climb to 1200 then climbing left turn to 4600 via BLH VORTAC R-080 to JAROZ/15 DME and hold.

ASOS	LOS ANGELES CENTER	UNICOM
120.175	128.15 285.6	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-26	760-1 366 (400-1)			760-1¼ 366 (400-1¼)
CIRCLING	840-1 443 (500-1)	860-1 463 (500-1)	960-1½ 563 (600-1½)	1260-2¾ 863 (900-2¾)

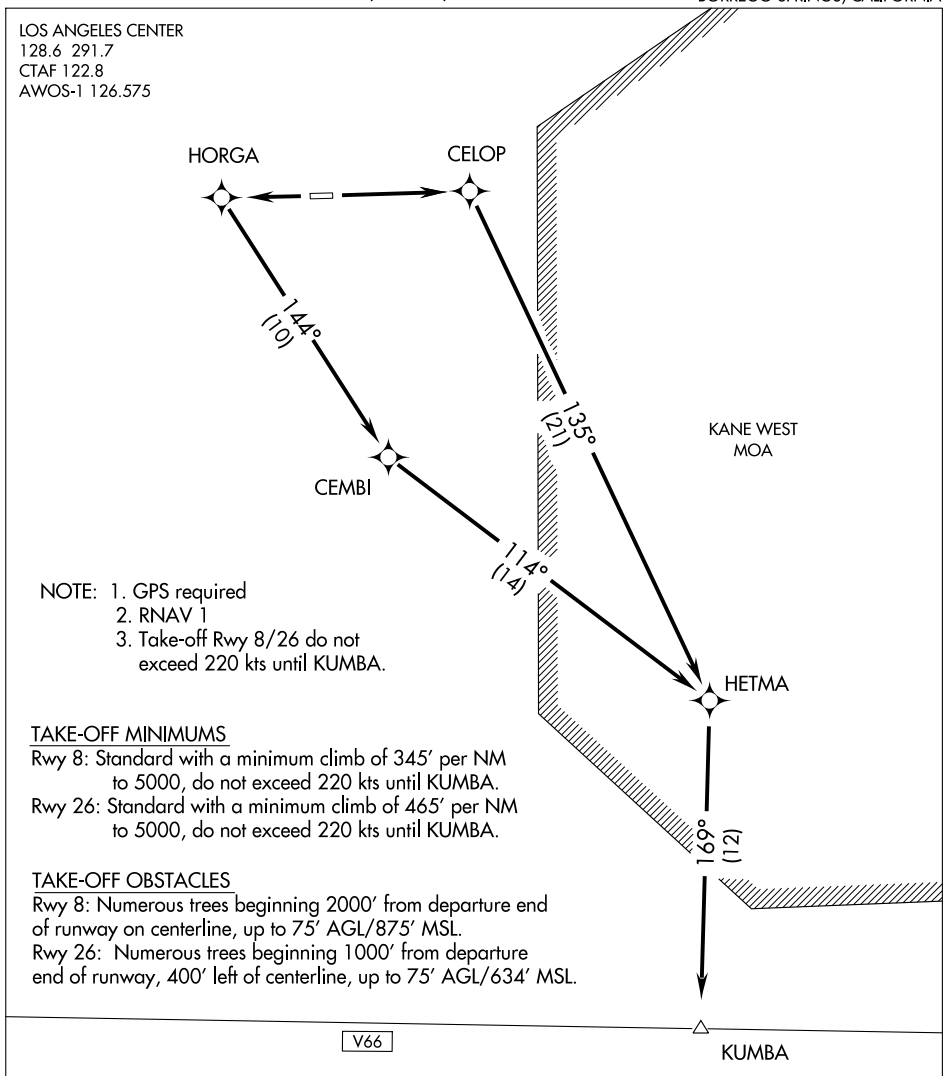
MIRL Rwys 8-26 and 17-35 L

Knots	60	90	120	150	180
Min:Sec					

SW-3, 14 JAN 2010 to 11 FEB 2010

KUMBA ONE DEPARTURE (RNAV)

BORREGO VALLEY (L08)
BORREGO SPRINGS, CALIFORNIA



NOTE: 1. GPS required
2. RNAV 1
3. Take-off Rwy 8/26 do not exceed 220 kts until KUMBA.

TAKE-OFF MINIMUMS

Rwy 8: Standard with a minimum climb of 345′ per NM to 5000, do not exceed 220 kts until KUMBA.
Rwy 26: Standard with a minimum climb of 465′ per NM to 5000, do not exceed 220 kts until KUMBA.

TAKE-OFF OBSTACLES

Rwy 8: Numerous trees beginning 2000′ from departure end of runway on centerline, up to 75′ AGL/875′ MSL.
Rwy 26: Numerous trees beginning 1000′ from departure end of runway, 400′ left of centerline, up to 75′ AGL/634′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 8: Climb direct CELOP then via depicted route to KUMBA.

TAKE-OFF RUNWAY 26: Climb direct HORGA, and left turn 144° track to CEMBI, then via depicted route to KUMBA.

SW-3, 14 JAN 2010 to 11 FEB 2010

BORREGO SPRINGS, CALIFORNIA AL-9287 (FAA)

APP CRS	Rwy Idg	5011
250°	TDZE	520
	Apt Elev	520

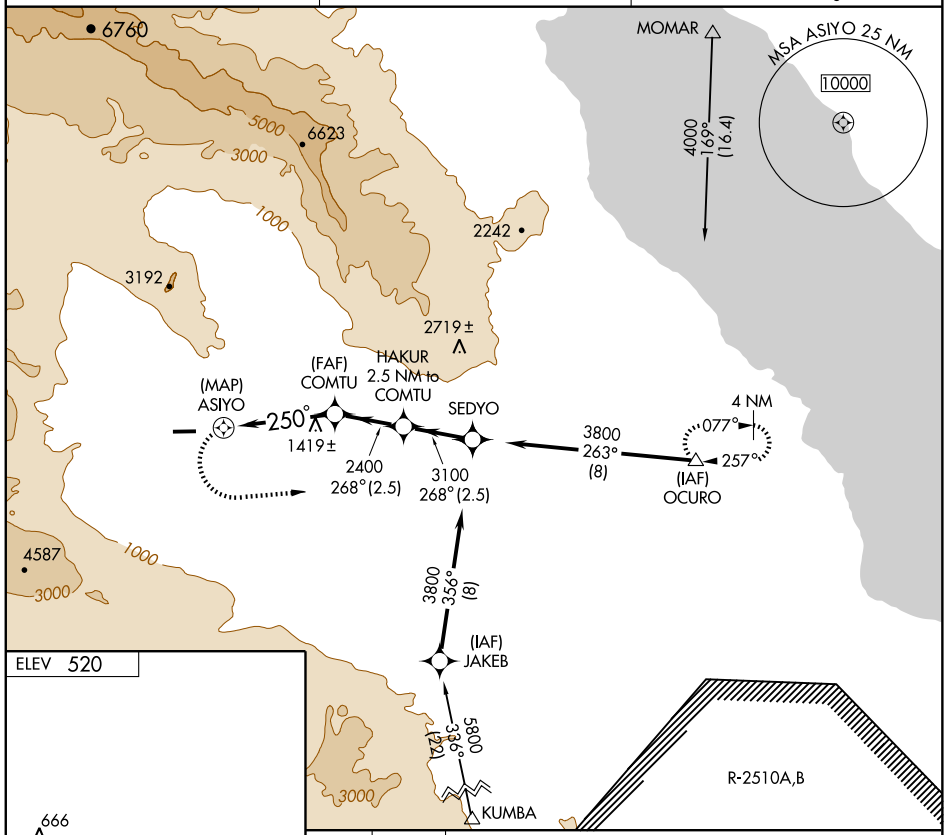
RNAV (GPS) RWY 26
BORREGO VALLEY (L08)

If local altimeter setting not received, use Imperial County altimeter setting and increase all MDAs 580 feet.
Circling not authorized south of Rwy 8-26.
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

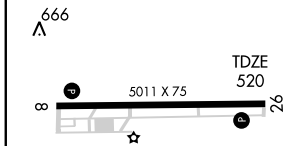
NA

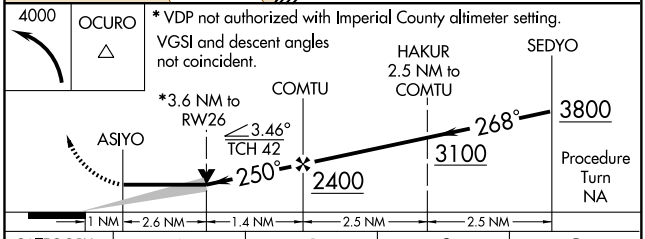
MISSED APPROACH: Climbing left turn to 4000 direct OCURO WP and hold.

AWOS-1	LOS ANGELES CENTER	UNICOM
126.575	128.6 291.7	122.8 (CTAF) L



ELEV 520





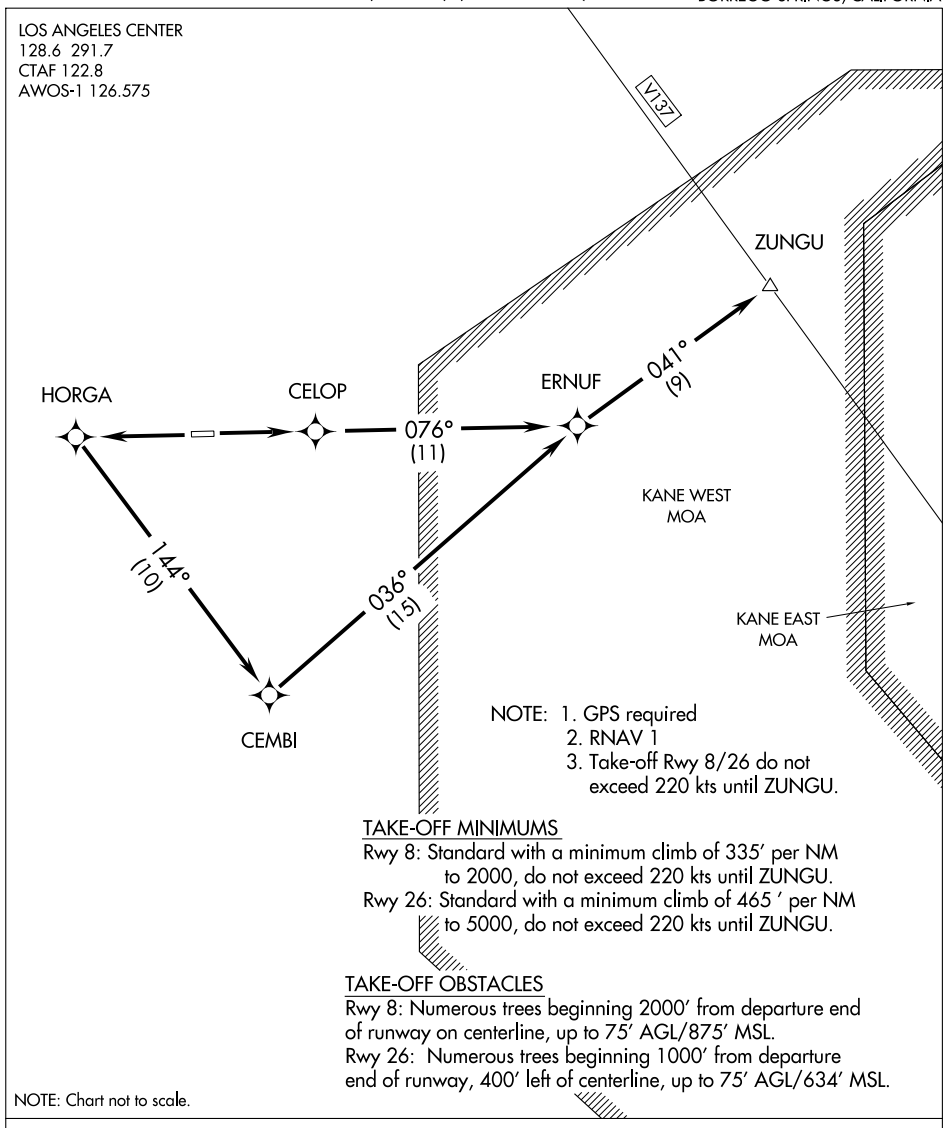
CATEGORY	A	B	C	D
LNAV MDA	1720-1¼ 1200 (1200-1¼)	1720-1½ 1200 (1200-1½)	1720-3 1200 (1200-3)	
CIRCLING	1720-1¼ 1200 (1200-1¼)	1720-1½ 1200 (1200-1½)	1720-3 1200 (1200-3)	

MIRL Rwy 8-26 L

SW-3, 14 JAN 2010 to 11 FEB 2010

ZUNGU ONE DEPARTURE (RNAV) (OBSTACLE)

BORREGO VALLEY (L08)
BORREGO SPRINGS, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 8: Climb direct CELOP then via depicted route to ZUNGU.

TAKE-OFF RUNWAY 26: Climb direct HORGA, and left turn 144° track to CEMBI, then via depicted route to ZUNGU.

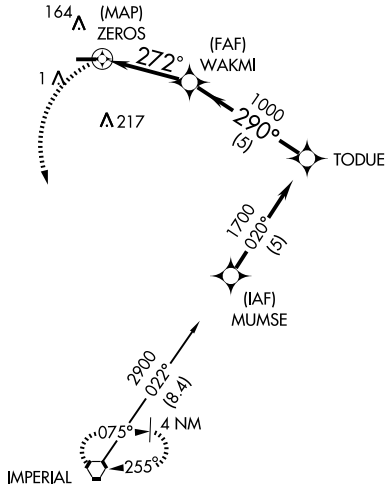
SW-3, 14 JAN 2010 to 11 FEB 2010

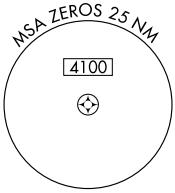
APP CRS	Rwy Idg	4007
272°	TDZE	-135
	Apt Elev	-129

RNAV (GPS) RWY 26

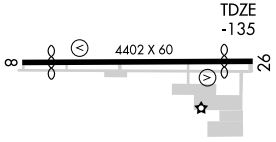
BRAWLEY MUNI (BWC)

T NA GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA. Use Imperial County altimeter setting.	MISSED APPROACH: Climbing left turn to 3600 direct IPL VORTAC and hold.
LOS ANGELES CENTER 128.6 291.7	CTAF 122.9 L



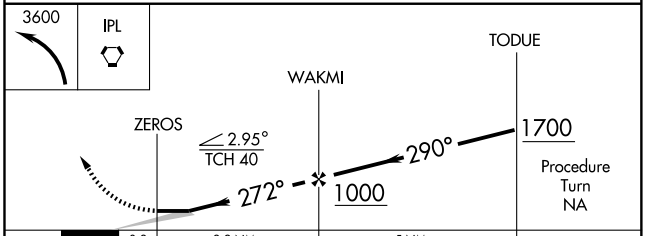


ELEV -129



MIRL Rwy 8-26 L

△571

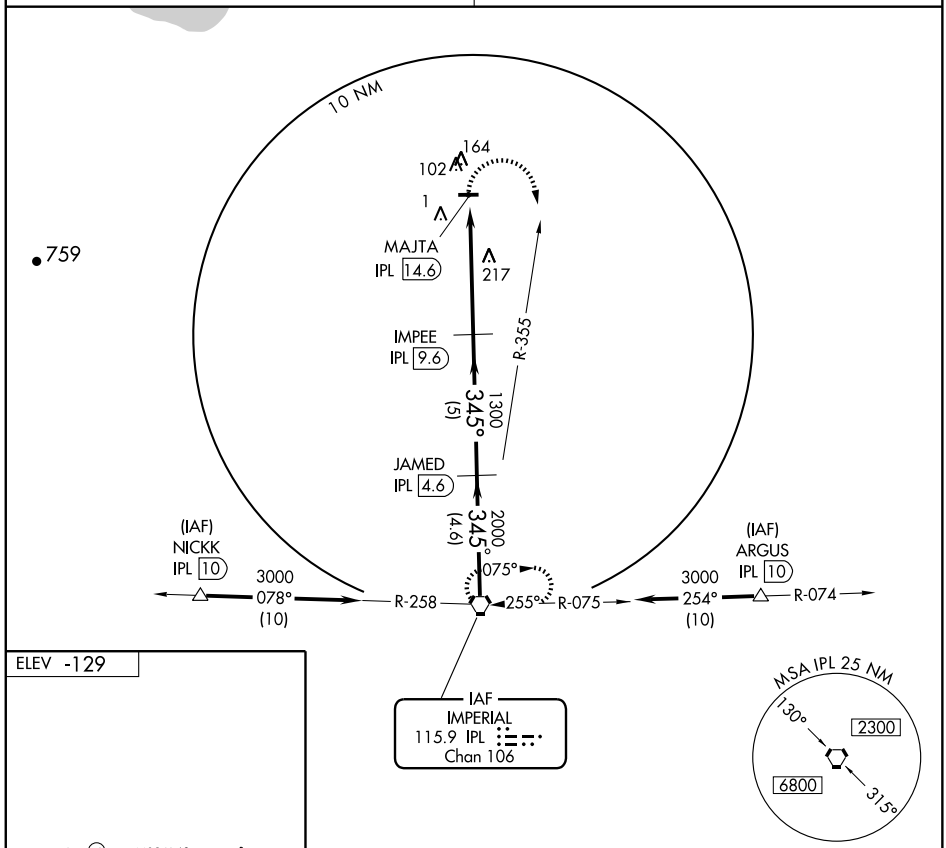


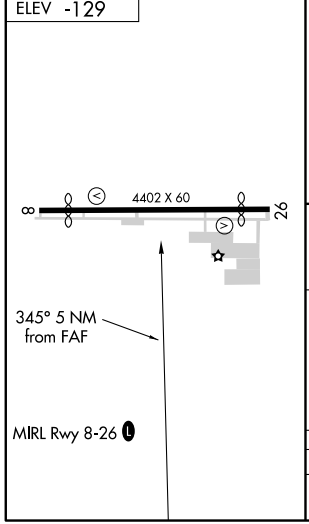
CATEGORY	A	B	C	D
LNAV MDA	360-1 495 (500-1)		360-1¼ 495 (500-1¼)	NA
CIRCLING	560-1 689 (700-1)		560-2 689 (700-2)	NA

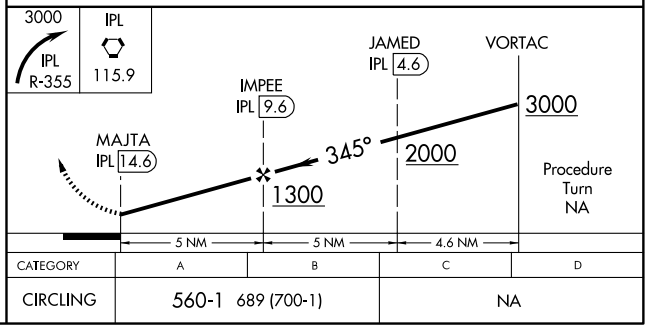
VORTAC IPL 115.9 Chan 106	APP CRS 345°	Rwy Idg N/A TDZE N/A Apt Elev -129

VOR/DME-A
BRAWLEY MUNI (BWC)

NA Use Imperial County altimeter setting.	MISSED APPROACH: Climbing right turn to 3000 via IPL R-355 to IPL VORTAC and hold.
LOS ANGELES CENTER 128.6 291.7	CTAF 122.9 L







CATEGORY	A	B	C	D
CIRCLING	560-1 689 (700-1)		NA	

VORTAC IPL 115.9 Chan 106	APP CRS 165°	Rwy Idg N/A TDZE N/A Apt Elev -129

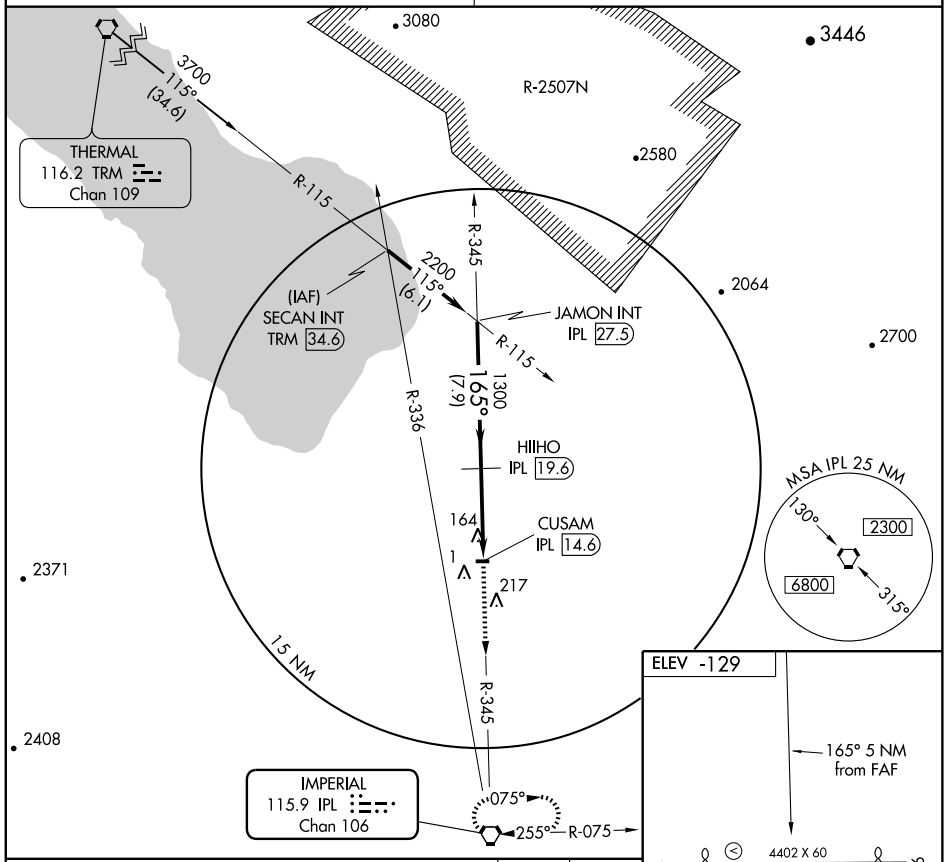
VOR/DME-B
BRAWLEY MUNI (BWC)

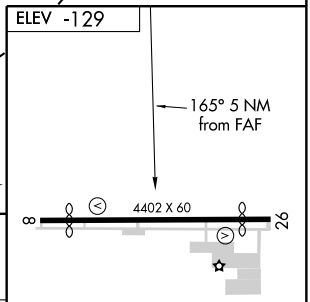
NA

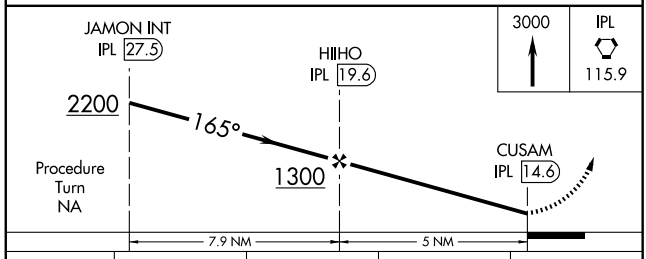
Use Imperial County altimeter setting.

MISSED APPROACH: Climb to 3000 direct IPL VORTAC and hold.

LOS ANGELES CENTER	CTAF
128.6 291.7	122.9 L







CATEGORY	A	B	C	D
CIRCLING	560-1 689 (700-1)		NA	

MIRL Rwy 8-26 L

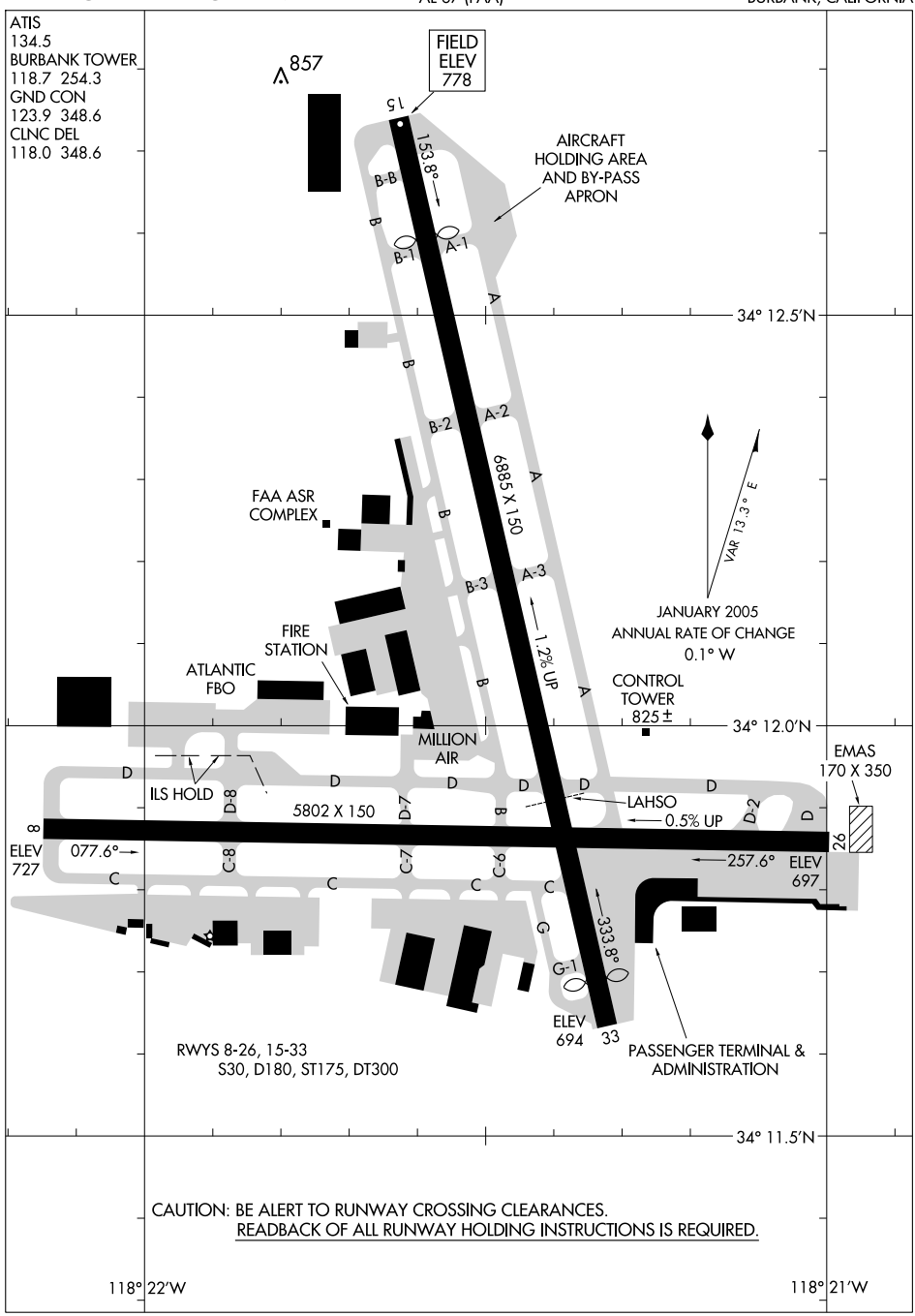
SW-3, 14 JAN 2010 to 11 FEB 2010

09239

AIRPORT DIAGRAM

AL-67 (FAA)

BURBANK/ BOB HOPE (BUR)
BURBANK, CALIFORNIA



SW-3, 14 JAN 2010 to 11 FEB 2010

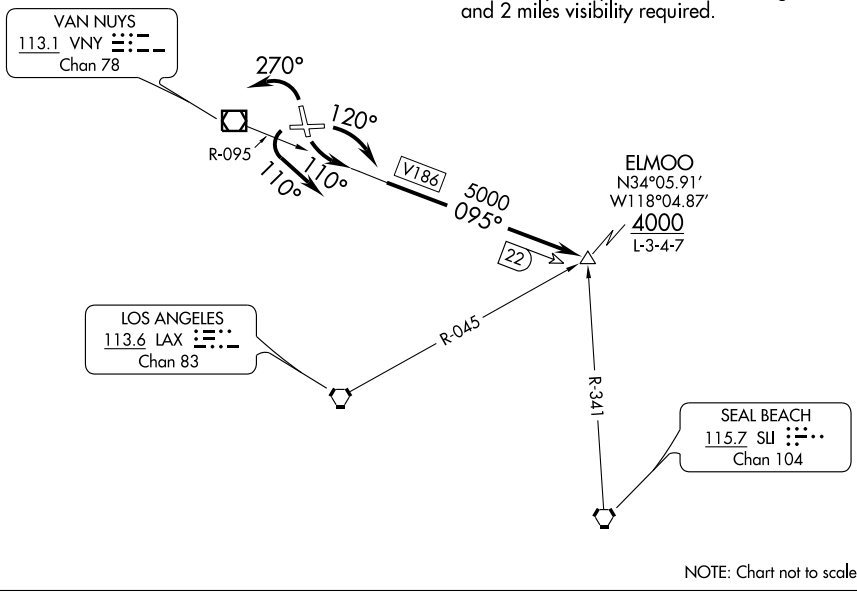
ELMOO FIVE DEPARTURE

ATIS 134.5
CLNC DEL
118.0 348.6
GND CON
123.9 348.6
SOCAL DEP CON
135.05 317.5

NOTE: This SID requires a minimum climb rate to MEA as follows:

Take-offs Rwy 8, Cats A and B, 480′ per NM.
Cats C and D, 650′ per NM.
Take-offs Rwy 15, 340′ per NM.
Take-offs Rwy 26, 250′ per NM.
Take-offs Rwy 33, 390′ per NM.

NOTE: For Runway 8 departures, 2100 ceiling and 2 miles visibility required.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

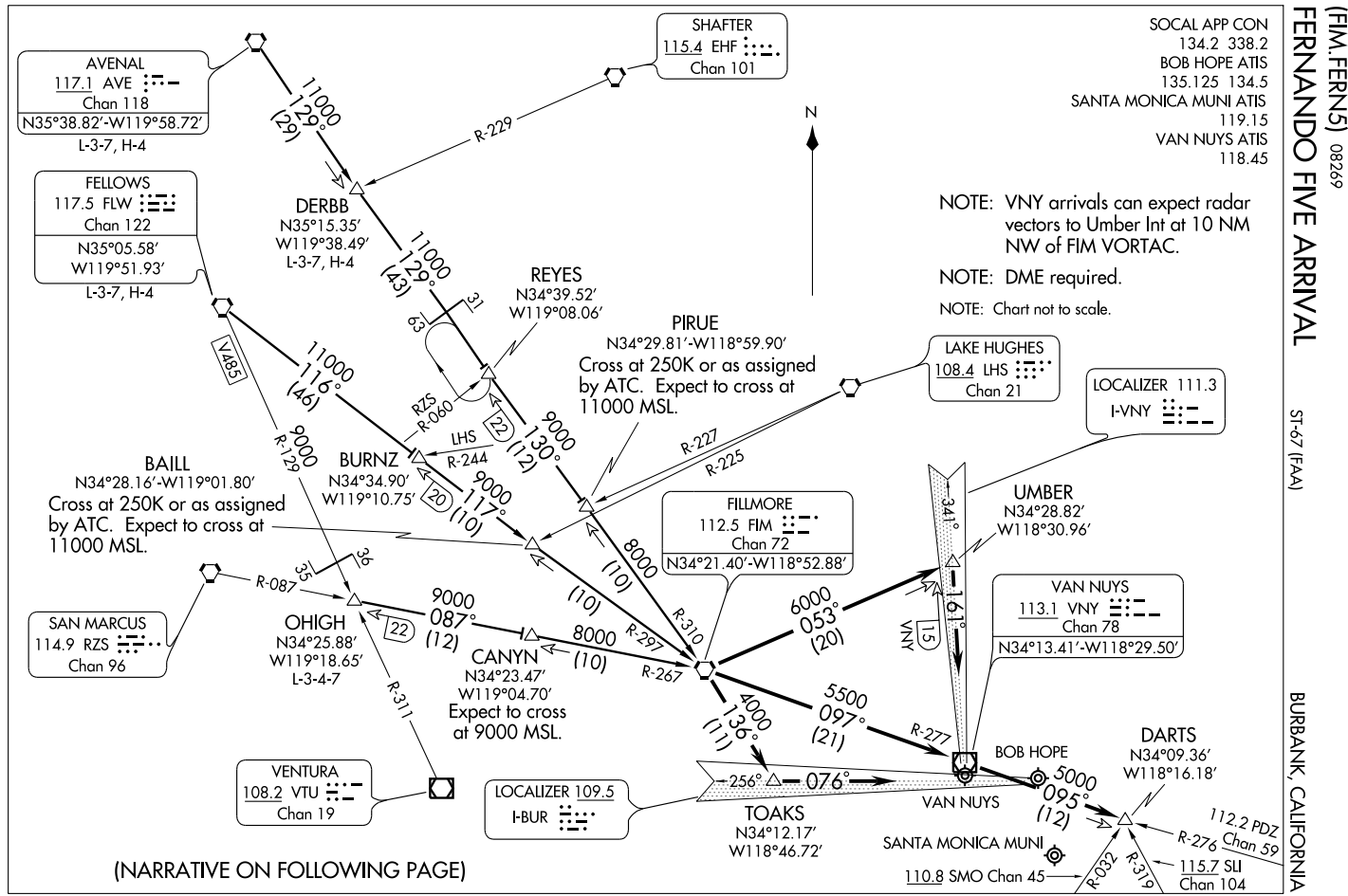
TAKE-OFF RUNWAY 8: Turn right heading 120° as soon as practicable after take-off, intercept and proceed via VNY R-095 to ELMOO INT. Then via (assigned route).

TAKE-OFF RUNWAY 15: Turn left heading 110° as soon as practicable after take-off, intercept and proceed via VNY R-095 to ELMOO INT. Then via (assigned route).

TAKE-OFF RUNWAY 26: Turn left heading 110° as soon as practicable after take-off for vector to VNY R-095. Then via VNY R-095 to ELMOO INT. Then via (assigned route).

TAKE-OFF RUNWAY 33: Turn left heading 270° as soon as practicable after take-off for vector to VNY R-095. Then via VNY R-095 to ELMOO INT. Then via (assigned route).

SW-3, 14 JAN 2010 to 11 FEB 2010


FERNANDO FIVE ARRIVAL (FIM.FERN5) 08269
ST-67 (FAA)
BURBANK, CALIFORNIA
SOCAL APP CON
134.2 338.2
BOB HOPE ATIS
135.125 134.5
SANTA MONICA MUNI ATIS
119.15
VAN NUYS ATIS
118.45
NOTE: VNY arrivals can expect radar vectors to Umber Int at 10 NM NW of FIM VORTAC.
NOTE: DME required.
NOTE: Chart not to scale.
N
AVENAL
117.1 AVE
Chan 118
N35°38.82'-W119°58.72'
L-3-7, H-4
SHAFTER
115.4 EHF
Chan 101
FELLOWS
117.5 FLW
Chan 122
N35°05.58'
W119°51.93'
L-3-7, H-4
DERBB
N35°15.35'
W119°38.49'
L-3-7, H-4
REYES
N34°39.52'
W119°08.06'
PIRUE
N34°29.81'-W118°59.90'
Cross at 250K or as assigned by ATC. Expect to cross at 11000 MSL.
LAKE HUGHES
108.4 LHS
Chan 21
LOCALIZER 111.3
I-VNY
BAILL
N34°28.16'-W119°01.80'
Cross at 250K or as assigned by ATC. Expect to cross at 11000 MSL.
BURNZ
N34°34.90'
W119°10.75'
FILLMORE
112.5 FIM
Chan 72
N34°21.40'-W118°52.88'
UMBER
N34°28.82'
W118°30.96'
VAN NUYS
113.1 VNY
Chan 78
N34°13.41'-W118°29.50'
SAN MARCUS
114.9 RZS
Chan 96
OHIGH
N34°25.88'
W119°18.65'
L-3-4-7
CANYN
N34°23.47'
W119°04.70'
Expect to cross at 9000 MSL.
VENTURA
108.2 VTU
Chan 19
LOCALIZER 109.5
I-BUR
TOAKS
N34°12.17'
W118°46.72'
BOB HOPE
VAN NUYS
DARTS
N34°09.36'
W118°16.18'
SANTA MONICA MUNI
110.8 SMO Chan 45
112.2 PDZ Chan 59
115.7 SLI Chan 104
11000 129° (29)
R-229
11000 129° (43)
31
63
V485
11000 116° (46)
RZS R-080
LHS R-244
22
9000 130° (12)
9000 R-129
20
9000 117° (10)
R-227
R-225
341°
8000 (10)
6000 053° (20)
161°
15 VNY
R-087
35
36
9000 087° (12)
22
8000 (10)
R-297
R-310
R-267
R-311
4000 136° (11)
5500 097° (21)
R-277
256°
076°
5000 095° (12)
R-276
R-032
R-319
(NARRATIVE ON FOLLOWING PAGE)

ARRIVAL DESCRIPTION

AVENAL TRANSITION (AVE.FERN5): From over AVE VORTAC via AVE R-129 and FIM R-310 to FIM VORTAC. Thence....

DERBB TRANSITION (DERBB.FERN5): From over DERBB INT via AVE R-129 and FIM R-310 to FIM VORTAC. Thence....

FELLOWS TRANSITION (FLW.FERN5): From over FLW VORTAC via FLW R-116 and FIM R-297 to FIM VORTAC. Thence....

OHIGH TRANSITION (OHIGH.FERN5): From over OHIGH INT via FIM R-267 to FIM VORTAC. Thence....

....From over FIM VORTAC:

LANDING BOB HOPE: Via FIM R-136 to TOAKS INT, then via I-BUR localizer. Expect ILS RWY 8.

LANDING SANTA MONICA MUNI: Via FIM R-097 and VNY R-277 to VNY VOR/DME; then via VNY R-095 to DARTS INT. Expect VOR-A approach.

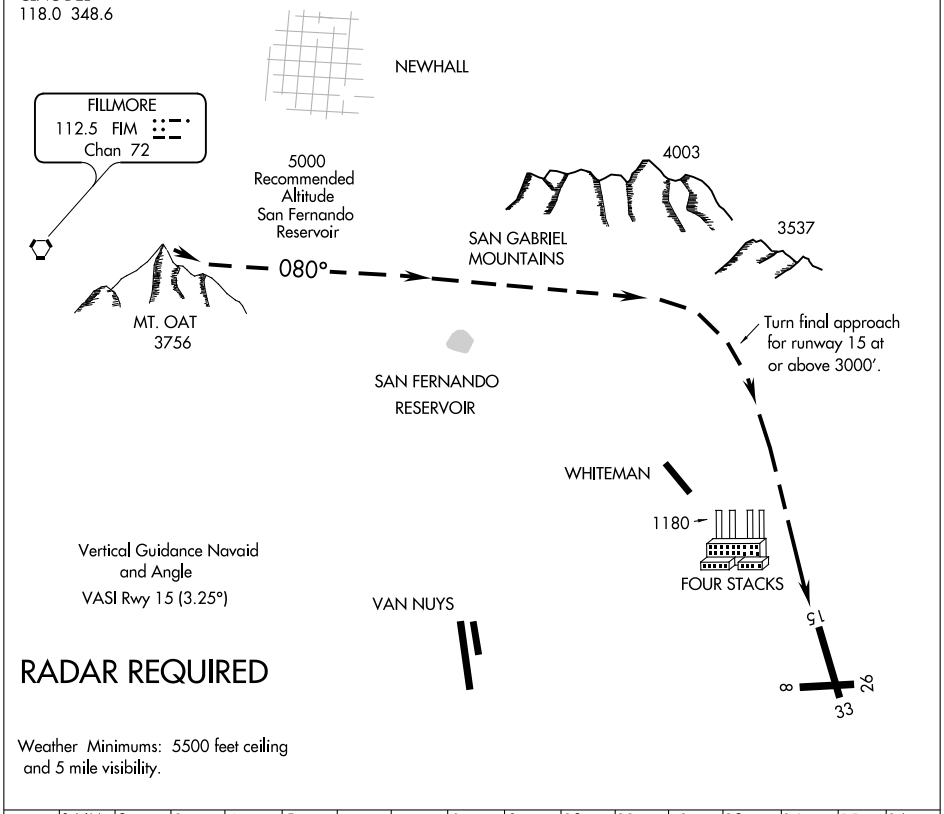
LANDING VAN NUYS RWY 16: Via FIM R-053 to UMBER INT, then via I-VNY localizer. Expect ILS RWY 16R.

LANDING VAN NUYS RWY 34: Via FIM R-136 to TOAKS INT, then via I-BUR localizer. Expect LDA-C; circle to land RWY 34L.

SW-3, 14 JAN 2010 to 11 FEB 2010

FOUR STACKS VISUAL RWY 15

ATIS 134.5
SOCAL APP CON
134.2 338.2
BURBANK TOWER
118.7 254.3
GND CON
123.9 348.6
CLNC DEL
118.0 348.6



Weather Minimums: 5500 feet ceiling and 5 mile visibility.

1 NM | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16

FOUR STACKS VISUAL APPROACH RWY 15

When Visual Approaches to Runway 15 are in progress, clearances will be given to aircraft from the Northwest thru Northeast utilizing the following phraseology:

"(IDENT) CLEARED FOR FOUR STACKS VISUAL APPROACH TO RUNWAY 15."

APP CRS	Rwy Idg	N/A
121°	TDZE	N/A
	Apt Elev	775

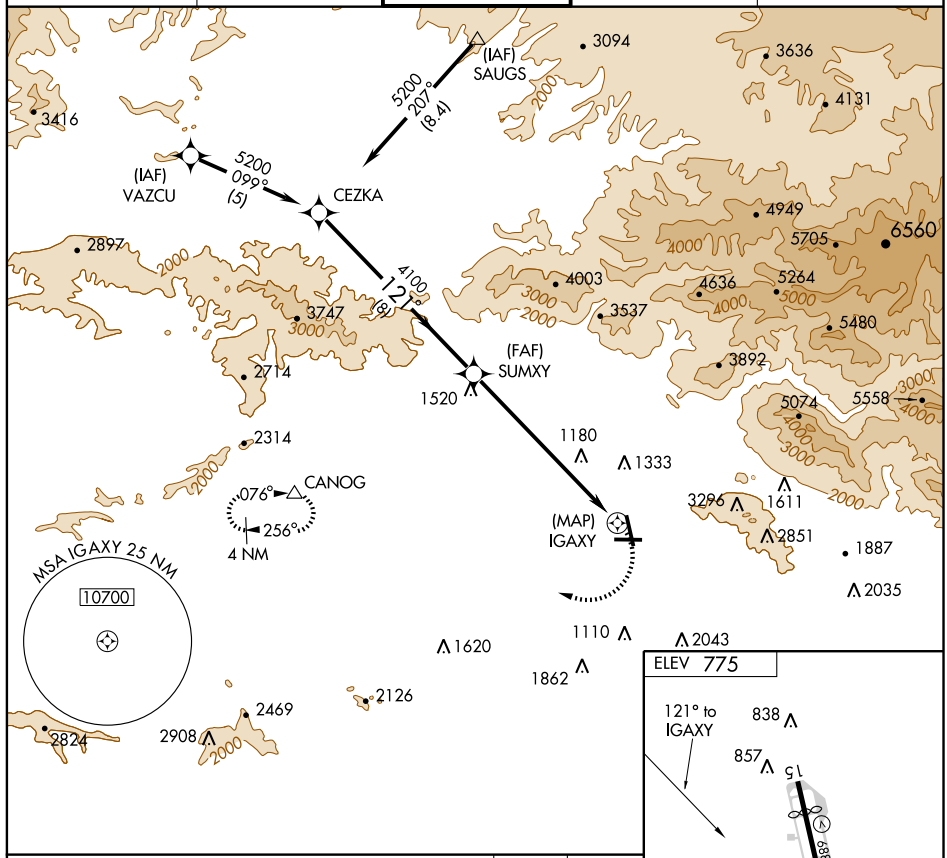
GPS-A

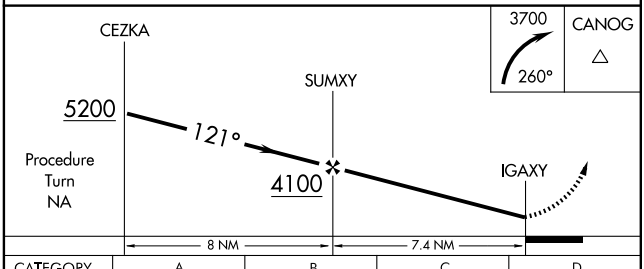
BURBANK/BOB HOPE (BUR)

NA Circling not authorized NE of Rwys 15 and 26.

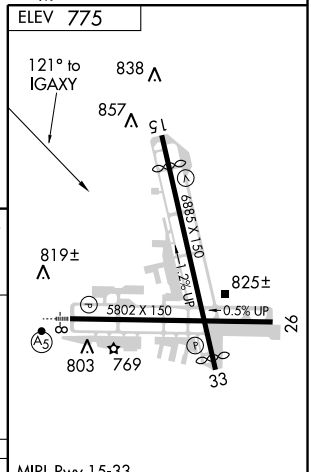
MISSED APPROACH: Climbing right turn to 3700 via course 260° to CANOG WP and hold.

ATIS	SOCAL APP CON	BURBANK TOWER	GND CON	CLNC DEL
134.5	134.2 338.2	118.7 254.3	123.9 348.6	118.0 348.6





CATEGORY	A	B	C	D
CIRCLING	1660-1¼ 885 (900-1¼)		1660-2¾ 885 (900-2¾)	1660-3 885 (900-3)



MIRL Rwy 15-33
HIRL Rwy 8-26
REIL Rwys 15, 26 and 33

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC I-BUR	APP CRS	Rwy Idg	5802
109.5	076°	TDZE	727
		Apt Elev	778

ILS or LOC Z RWY 8

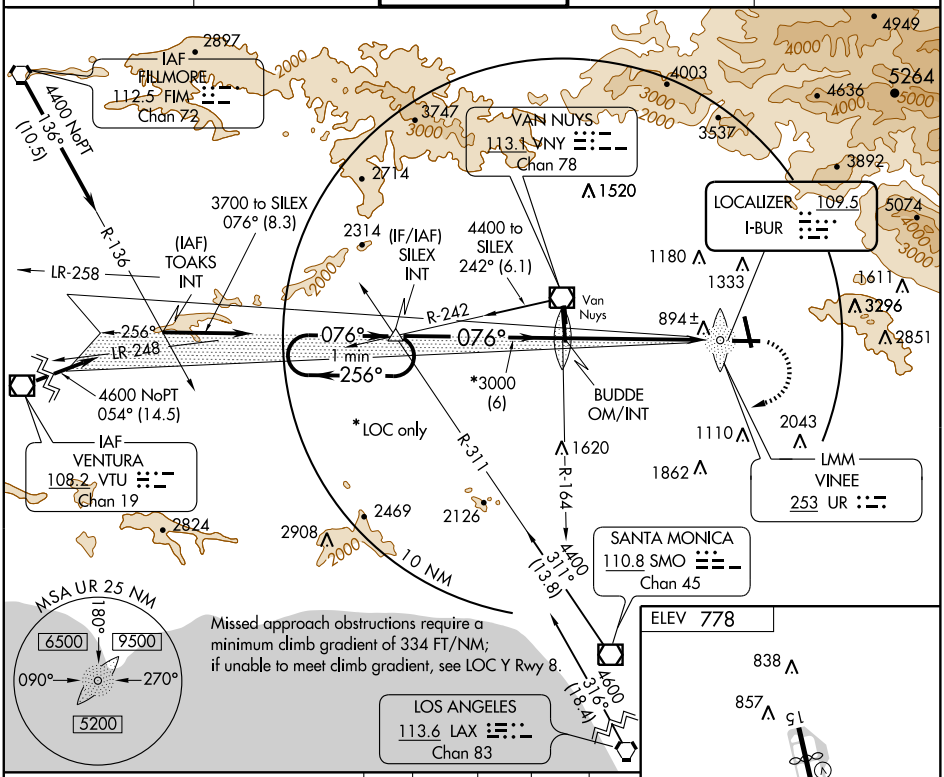
BURBANK/BOB HOPE (BUR)

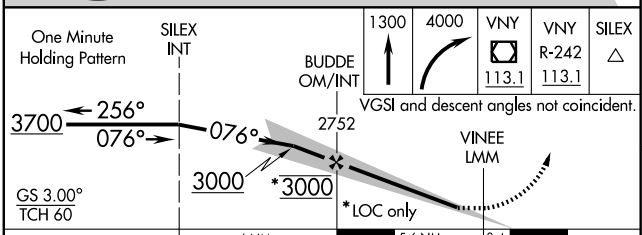
Visibility reduction by helicopters NA. Circling NA northeast Rwys 15 and 26.
For inoperative MALSR, increase S-LOC 8 Cats C,D visibility to RVR 6000. Inoperative table does not apply to S-ILS 8 all Cats. Inoperative table does not apply to S-LOC 8 Cats A,B. ILS unusable from VINEE LMM inbound. Autopilot coupled approach not authorized below 977 MSL.

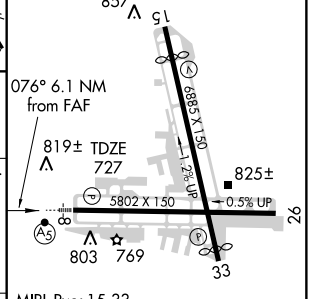
MALSR

MISSED APPROACH: Climb to 1300 then climbing right turn to 4000 direct VNY VOR/DME then via VNY VOR/DME R-242 to SILEX Int and hold.

ATIS	SOCAL APP CON	BURBANK TOWER	GND CON	CLNC DEL
134.5	134.2 338.2	118.7 254.3	123.9 348.6	118.0 348.6







CATEGORY	A	B	C	D
S-ILS 8	977/50	250 (200-1)		
S-LOC 8	1140/50	413 (400-1)		
CIRCLING	1240-1	462 (500-1)	1280-1½ 502 (600-1½)	1440-2 662 (700-2)

FAF to MAP 5.4 NM

Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC I-BUR	APP CRS	Rwy Idg	5802
109.5	076°	TDZE	727
		Apt Elev	778

LOC Y RWY 8

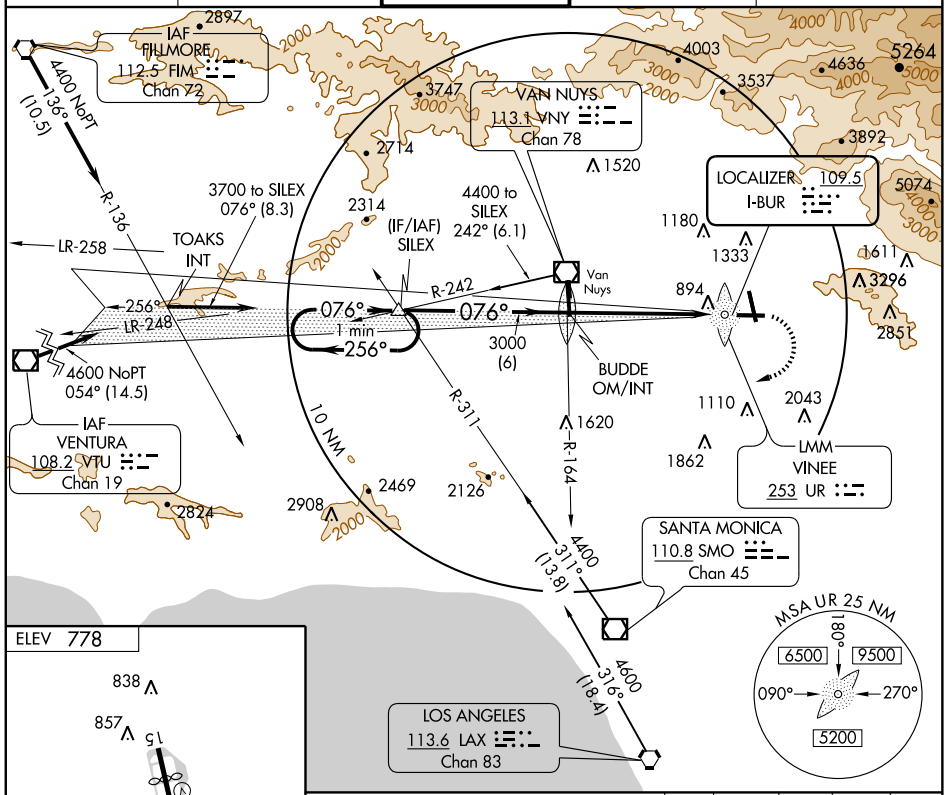
BURBANK/BOB HOPE (BUR)

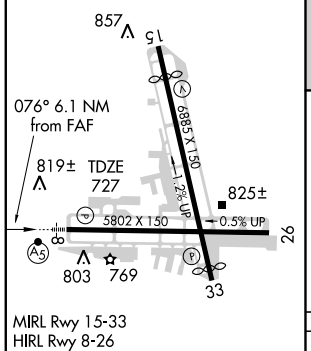
Visibility reduction by helicopters not authorized.
Circling not authorized northeast of Rwys 15 and 26.
Inoperative table does not apply to S-8 Cat A.
For inoperative MALSR, increase S-8 Cat B visibility to RVR 6000. LOC unusable from VINEE LMM inbound.

MALSR

MISSED APPROACH: Climb to 2000 then climbing right turn to 4000 direct VNY VOR/DME, then via VNY VOR/DME R-242 to SILEX Int and hold.

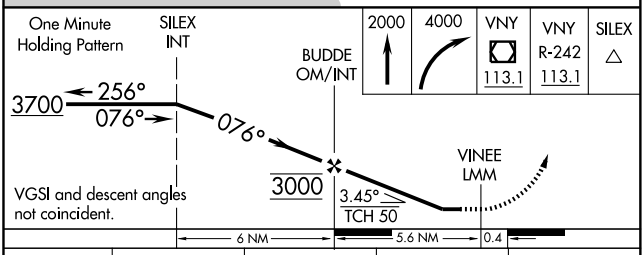
ATIS	SOCAL APP CON	BURBANK TOWER	GND CON	CLNC DEL
134.5	134.2 338.2	118.7 254.3	123.9 348.6	118.0 348.6





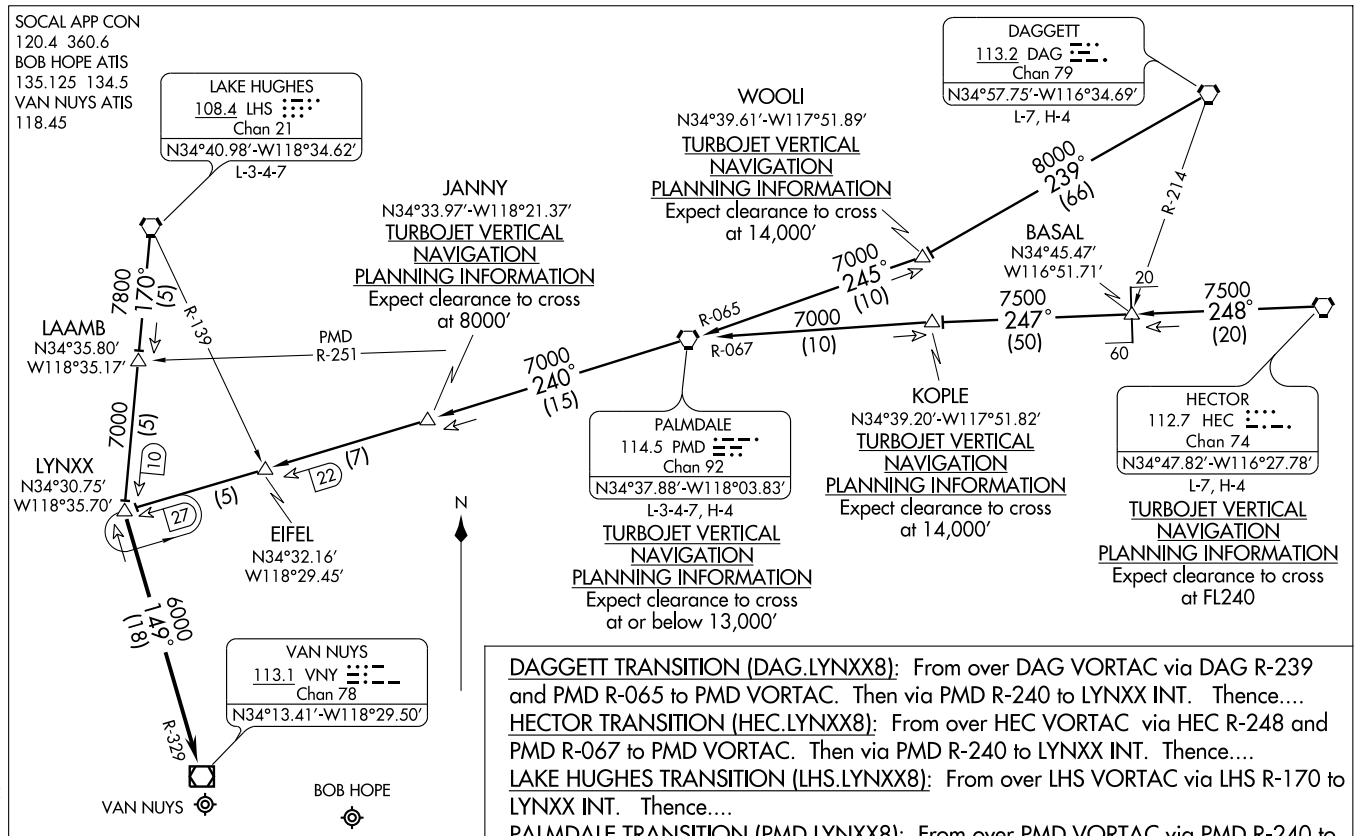
MIRL Rwy 15-33
HIRL Rwy 8-26
REIL Rwys 15, 26 and 33

FAF to MAP 5.4 NM					
Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48



CATEGORY	A	B	C	D
S-8	1600/50	873 (900-1)	1600-2 873 (900-2)	1600-2¼ 873 (900-2¼)
CIRCLING	1600-1 822 (900-1)	1600-1¼ 822 (900-1¼)	1600-2½ 822 (900-2½)	1600-2¾ 822 (900-2¾)

SW-3, 14 JAN 2010 to 11 FEB 2010



DAGGETT TRANSITION (DAG.LYNXX8): From over DAG VORTAC via DAG R-239 and PMD R-065 to PMD VORTAC. Then via PMD R-240 to LYNXX INT. Thence....

HECTOR TRANSITION (HEC.LYNXX8): From over HEC VORTAC via HEC R-248 and PMD R-067 to PMD VORTAC. Then via PMD R-240 to LYNXX INT. Thence....

LAKE HUGHES TRANSITION (LHS.LYNXX8): From over LHS VORTAC via LHS R-170 to LYNXX INT. Thence....

PALMDALE TRANSITION (PMD.LYNXX8): From over PMD VORTAC via PMD R-240 to LYNXX INT. Thence....

....From over LYNXX INT via VNY R-329 to VNY VOR/DME. Expect radar vectors to final approach course after VNY VOR/DME.

APP CRS	Rwy Idg	5802
076°	TDZE	727
	Apt Elev	778

RNAV (GPS) Y RWY 8

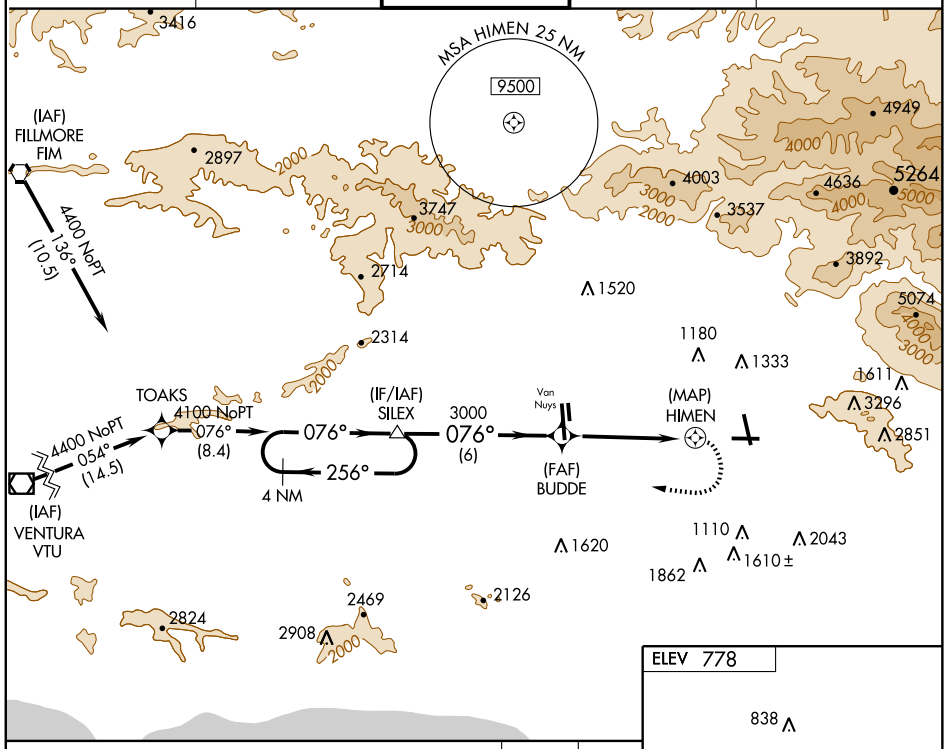
BURBANK/BOB HOPE (BUR)

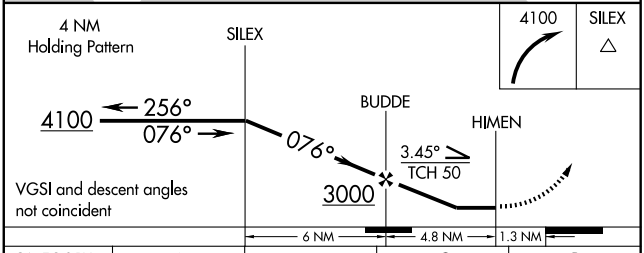
Circling not authorized northeast of Rwys 15 and 26.
Visibility reduction by helicopters NA.
DME/DME RNP- 0.3 NA.

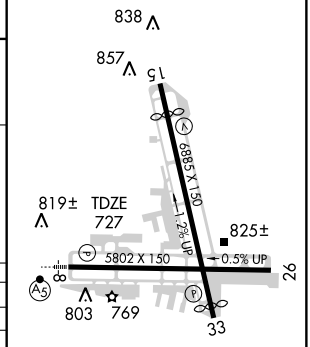
MALSR

MISSED APPROACH: Climbing right turn to 4100 direct SILEX WP and hold.

ATIS	SOCAL APP CON	BURBANK TOWER	GND CON	CLNC DEL
134.5	134.2 338.2	118.7 254.3	123.9 348.6	118.0 348.6







CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	NA			
LNAV MDA	1600/50 873 (900-1)		1600-2 873 (900-2)	1600-2¼ 873 (900-2¼)
CIRCLING	1600-1½ 822 (900-1½)		1600-2½ 822 (900-2½)	1600-2¾ 822 (900-2¾)

MIRL Rwy 15-33
HIRL Rwy 8-26
REIL Rwys 15, 26 and 33

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	5802
076°	TDZE	727
	Apt Elev	778

RNAV (RNP) Z RWY 8

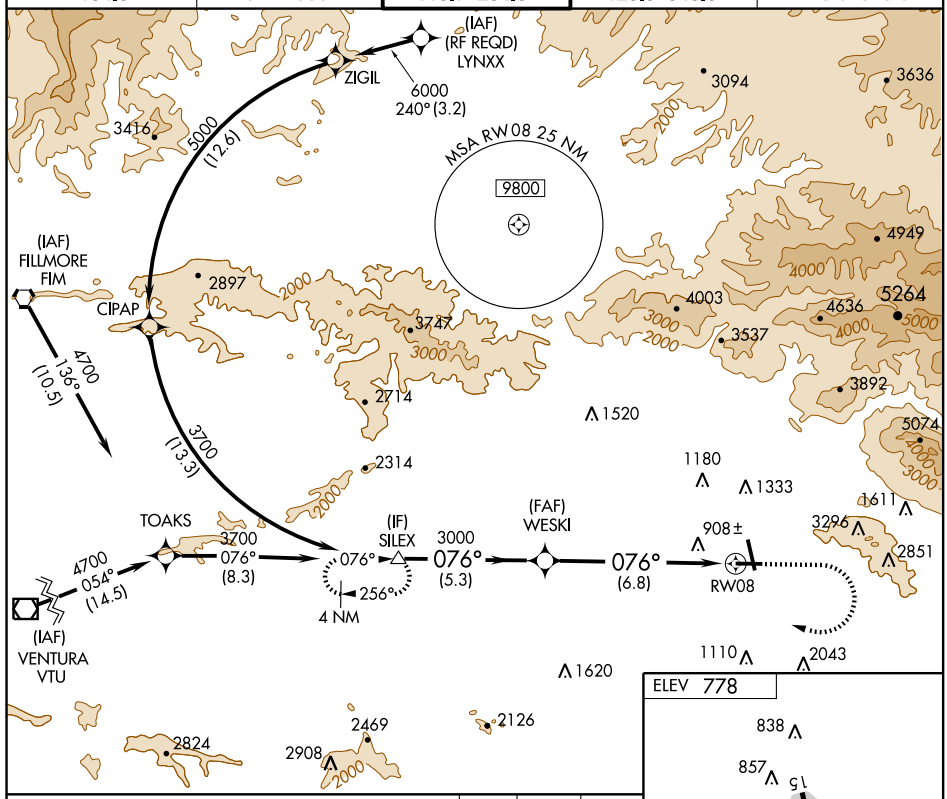
BURBANK/BOB HOPE (BUR)

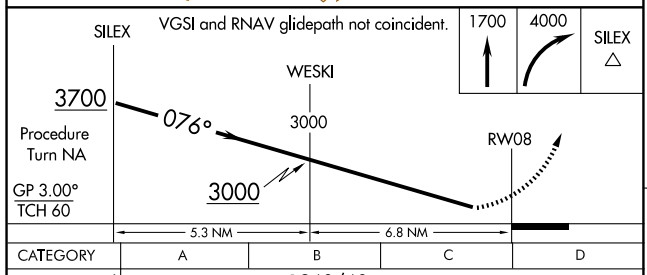
GPS required. For uncompensated Baro-VNAV systems, procedure NA below 1°C (33°F) or above 47°C (117°F). Visibility reduction by helicopters NA. For inoperative MALSR, increase RNP 0.30 all Cats visibility to 1¾ mile. *Missed approach requires minimum climb of 391 feet per NM to 2700 if unable see RNAV (GPS) Y Rwy 8.

MALSR

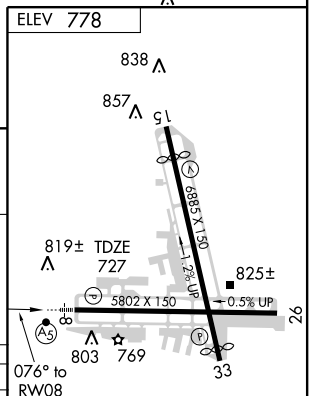
MISSED APPROACH: Climb to 1700 then climbing right turn to 4000 direct SILEX and hold.

ATIS	SOCAL APP CON	BURBANK TOWER	GND CON	CLNC DEL
134.5	134.2 338.2	118.7 254.3	123.9 348.6	118.0 348.6





SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

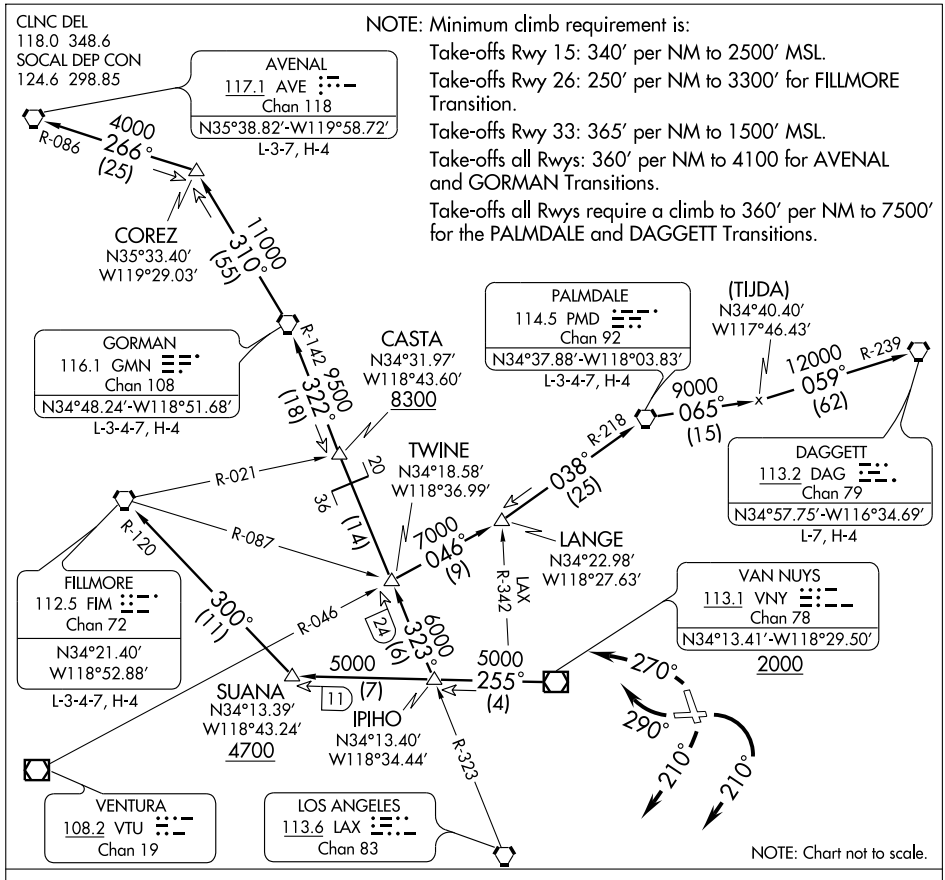


MIRL Rwy 15-33
HIRL Rwy 8-26
REIL Rwys 15, 26 and 33

SW-3, 14 JAN 2010 to 11 FEB 2010

VAN NUYS SEVEN DEPARTURE

SL-67 (FAA)



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 8: Turn right heading 210° as soon as practicable after take-off. Expect vector to VNY VOR/DME. Thence via (transition) or (assigned route).
NOTE: Runway 8 departures not authorized when weather conditions are less than 2100′ ceiling and 3 miles prevailing visibility.

TAKE-OFF RUNWAY 15: Turn right heading 210° as soon as practicable after take-off. Expect vector to VNY VOR/DME, then via (transition) or (assigned route).

TAKE-OFF RUNWAY 26: Turn right heading 290° as soon as practicable after take-off for vector to VNY VOR/DME, then via (transition) or (assigned route).

TAKE-OFF RUNWAY 33: Turn left heading 270° as soon as practicable after take-off for vector to VNY VOR/DME, then via (transition) of (assigned route).

AVENAL TRANSITION (VNY7.AVE)

DAGGETT TRANSITION (VNY7.DAG)

FILLMORE TRANSITION (VNY7.FIM)

GORMAN TRANSITION (VNY7.GMN)

PALMDALE TRANSITION (VNY7.PMD)

VOR/DME VNY	APP CRS	Rwy Idg	5802
113.1	089°	TDZE	727
Chan 78		Apt Elev	778

VOR RWY 8

BURBANK/BOB HOPE (BUR)

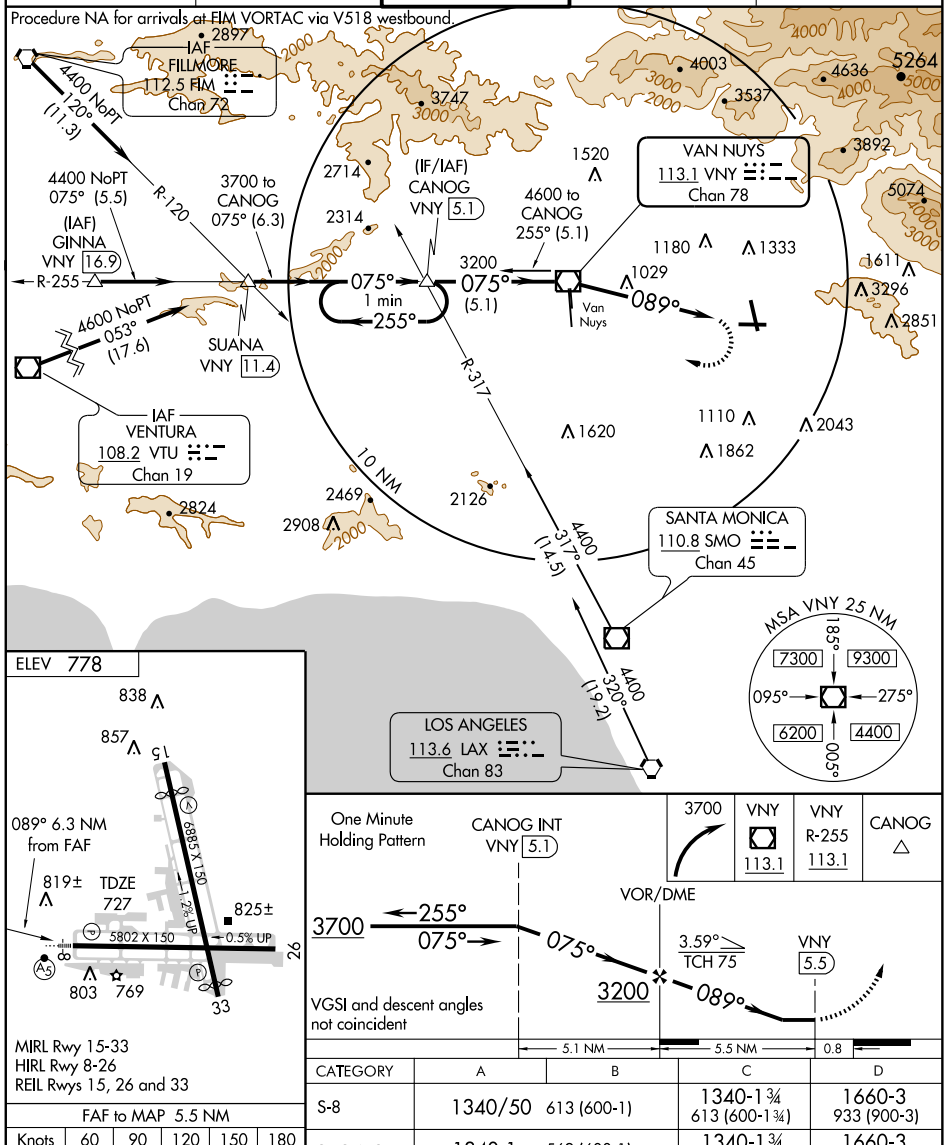
Circling not authorized northeast of Rwys 15 and 26.
Inoperative table does not apply.
Visibility reduction by helicopters not authorized.

MALSR

MISSED APPROACH: Climbing right turn to 3700 direct VNY VOR/DME, then via VNY VOR/DME R-255 to CANOG INT/VNY 5.1 DME and hold.

ATIS	SOCAL APP CON	BURBANK TOWER	GND CON	CLNC DEL
134.5	134.2 338.2	118.7 254.3	123.9 348.6	118.0 348.6

Procedure NA for arrivals at FIM VORTAC via V518 westbound.



MIRL Rwy 15-33
HIRL Rwy 8-26
REIL Rwys 15, 26 and 33

FAF to MAP 5.5 NM					
Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50

CATEGORY	A	B	C	D
S-8	1340/50	613 (600-1)	1340-1¾ 613 (600-1¾)	1660-3 933 (900-3)
CIRCLING	1340-1	562 (600-1)	1340-1¾ 562 (600-1¾)	1660-3 882 (900-3)

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	4500
CH 65902	300°	TDZE	55
W30A		Apt Elev	79

RNAV (GPS) RWY 30

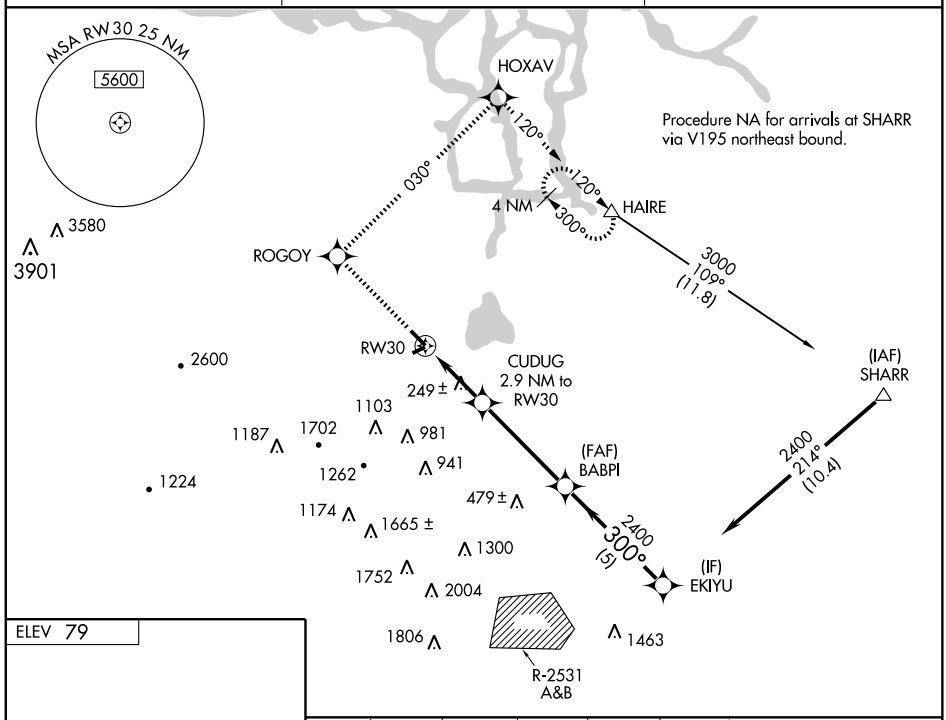
BYRON (C83)

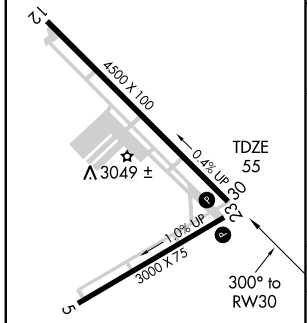
T A NA W

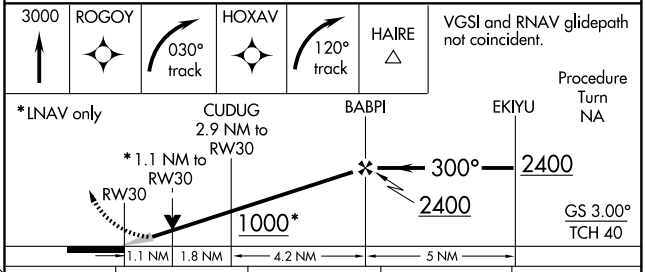
Circling to Rwy 5, 12 NA at night. Circling NA SW of Rwy 12-30.
If local altimeter setting not received, use Stockton Metropolitan altimeter setting and increase all DA/MDAs 60 feet.
DME/DME RNP-0.3 NA.
VDP NA when using Stockton Metropolitan altimeter setting.

MISSED APPROACH: Climb to 3000 direct ROGOY and right turn via 030° track to HOXAV and right turn via 120° track to HAIRE and hold, continue climb-in-hold to 3000.

AWOS-3	NORCAL APP CON	UNICOM
123.775	123.85 278.3	123.05 (CTAF) L





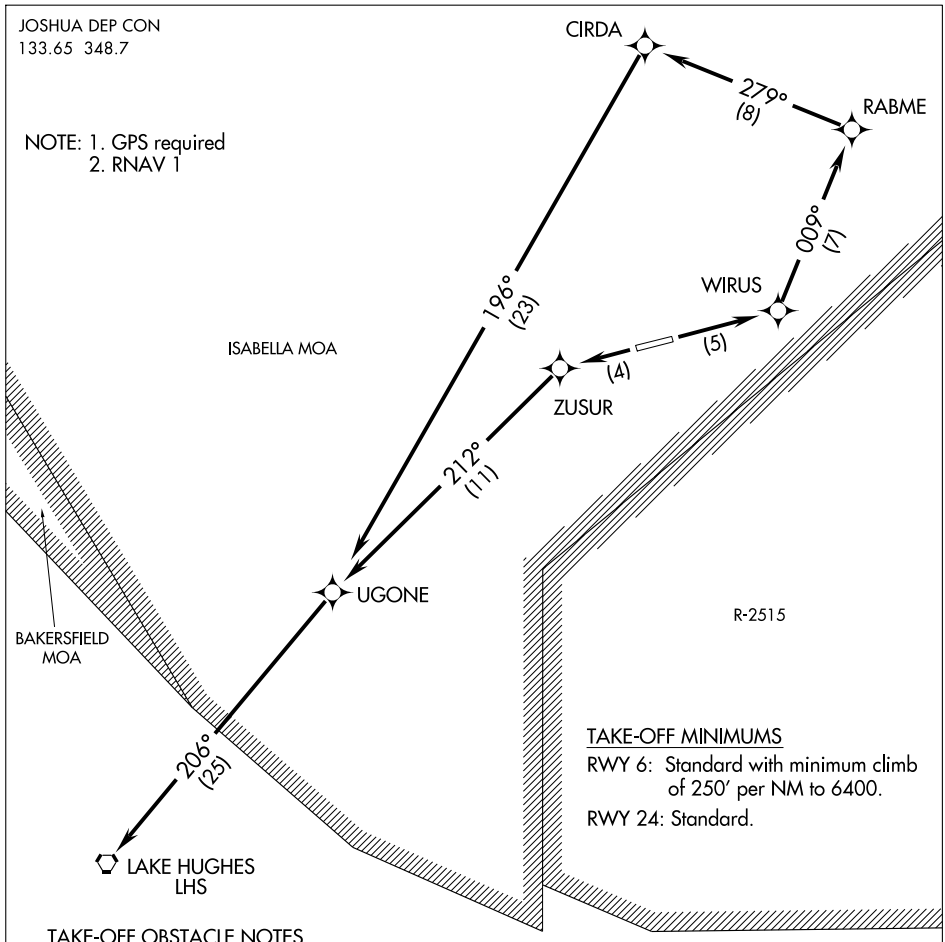


CATEGORY	A	B	C	D
LPV DA	305-1 250 (300-1)		NA	
LNAV MDA	500-1 445 (500-1)		NA	
CIRCLING	520-1 441 (500-1)	540-1 461 (500-1)	NA	

REIL Rwy 30 L
MIRL Rwys 5-23 and 12-30 L

CALIFORNIA CITY ONE DEPARTURE (RNAV) (OBSTACLE)

CALIFORNIA CITY, CALIFORNIA



TAKE-OFF MINIMUMS

RWY 6: Standard with minimum climb of 250′ per NM to 6400.

RWY 24: Standard.

TAKE-OFF OBSTACLE NOTES

Rwy 6: Ground 37′ from departure end of runway, 408′ right of centerline, 0′ AGL/2406′ MSL.

Rwy 24: Windsock 8′ from departure end of runway, 159′ right of centerline, 25′ AGL/2476′ MSL.
Bush 220′ from departure end of runway 456′ left of centerline, 9′ AGL/2467′ MSL.
Bush 550′ from departure end of runway, 447′ left of centerline, 16′ AGL/2474′ MSL.
Bush 365′ from departure end of runway, 299′ left of centerline, 8′ AGL/2469′ MSL.
Bush 245′ from departure end of runway, 449′ left of centerline, 8′ AGL/2466′ MSL.
Bush 422′ from departure end of runway, 454′ left of centerline, 12′ AGL/2470′ MSL.
Bush 355′ from departure end of runway, 106′ left of centerline, 6′ AGL/2467′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 6: Climb direct WIRUS, then via depicted route to LHS VORTAC. Maintain 9000.

TAKE-OFF RUNWAY 24: Climb direct ZUSUR, then via depicted route to LHS VORTAC. Maintain 9000.

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS		
047°	Rwy Idg	6027
	TDZE	2454
	Apt Elev	2454

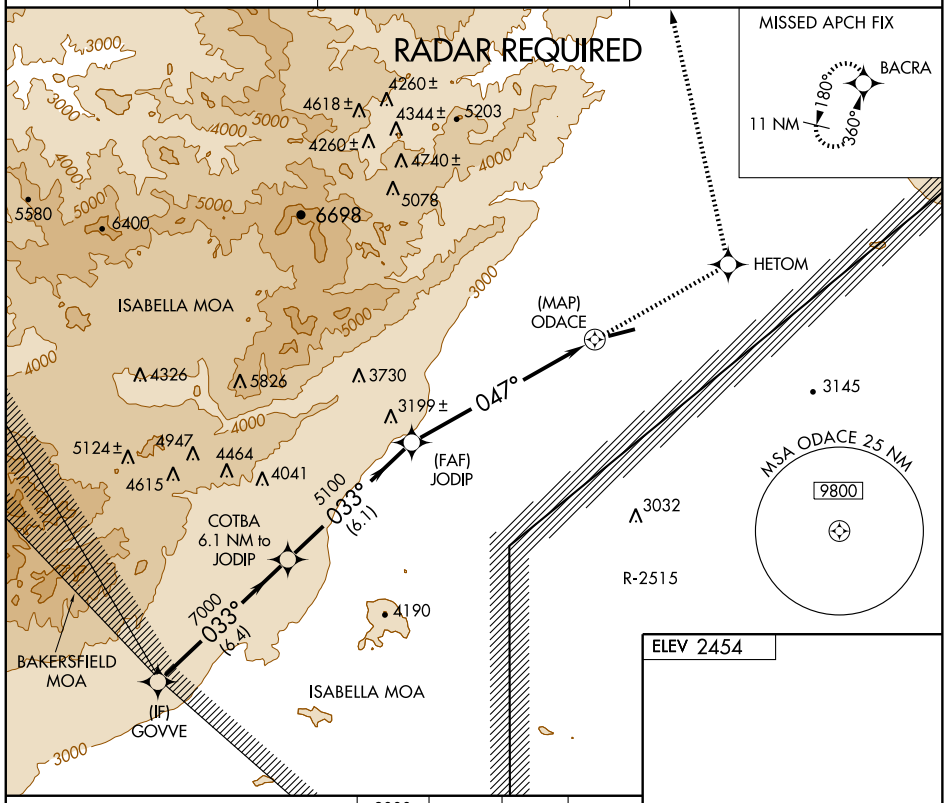
RNAV (GPS) RWY 6

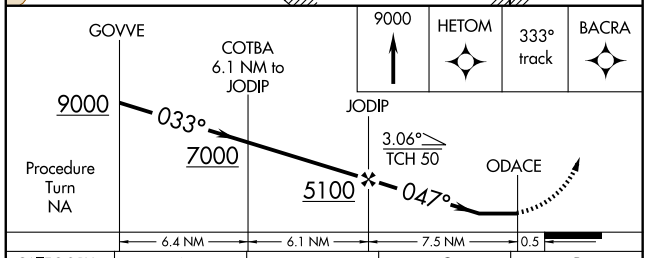
CALIFORNIA CITY MUNI (L71)

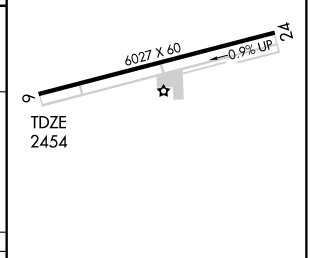
DME/DME RNP -0.3 NA.
NA
If local altimeter setting not received, use Edwards AFB altimeter setting and increase all MDAs 60 feet; if neither received, procedure not authorized. Procedure not authorized at night.

MISSED APPROACH: Climb to 9000 direct HETOM and via 333° track to BACRA and hold, continue climb-in-hold to 9000.

AWOS-1	JOSHUA APP CON	UNICOM
120.875	133.65 348.7	122.7 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	3660-1¼ 1206 (1300-1¼)	3660-1½ 1206 (1300-1½)	3660-3 1206 (1300-3)	NA
CIRCLING	3660-1¼ 1206 (1300-1¼)	3660-1½ 1206 (1300-1½)	3660-3 1206 (1300-3)	NA

MIRL Rwy 6-24 L

SW-3, 14 JAN 2010 to 11 FEB 2010

CALIFORNIA CITY, CALIFORNIA

AL-9440 (FAA)

APP CRS		
227°	Rwy Idg	6027
	TDZE	2429
	Apt Elev	2454

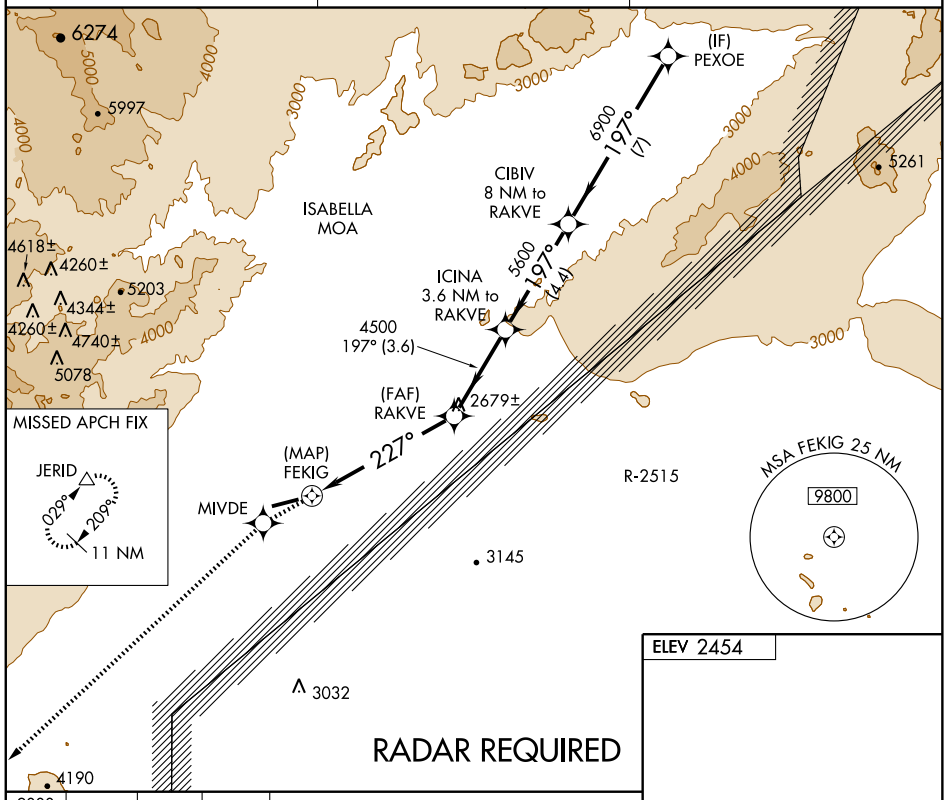
RNAV (GPS) RWY 24

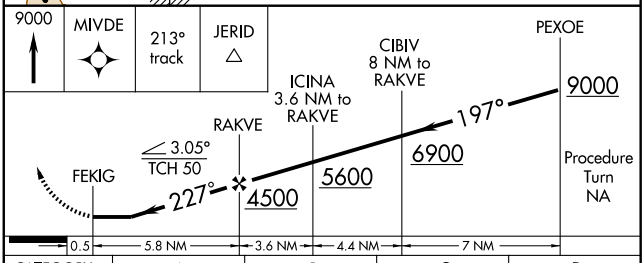
CALIFORNIA CITY MUNI (L71)

DME/DME RNP -0.3 NA.
NA
If local altimeter setting not received, use Edwards AFB altimeter setting and increase all MDAs 60 feet; if neither received, procedure not authorized. Procedure not authorized at night.

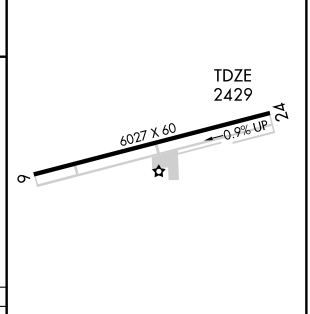
MISSED APPROACH: Climb to 9000 direct MIVDE and via 213° track to JERID and hold, continue climb-in-hold to 9000.

AWOS-1	JOSHUA APP CON	UNICOM
120.875	133.65 348.7	122.7 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	2820-1 391 (400-1)			NA
CIRCLING	2940-1 486 (500-1)	2960-1 506 (600-1)	3080-1¾ 626 (700-1¾)	NA



MIRL Rwy 6-24 L

SW-3, 14 JAN 2010 to 11 FEB 2010

CALIPATRIA, CALIFORNIA

AL-9486 (FAA)

APP CRS	Rwy Idg	3303
078°	TDZE	-182
	Apt Elev	-182

RNAV (GPS) RWY 8

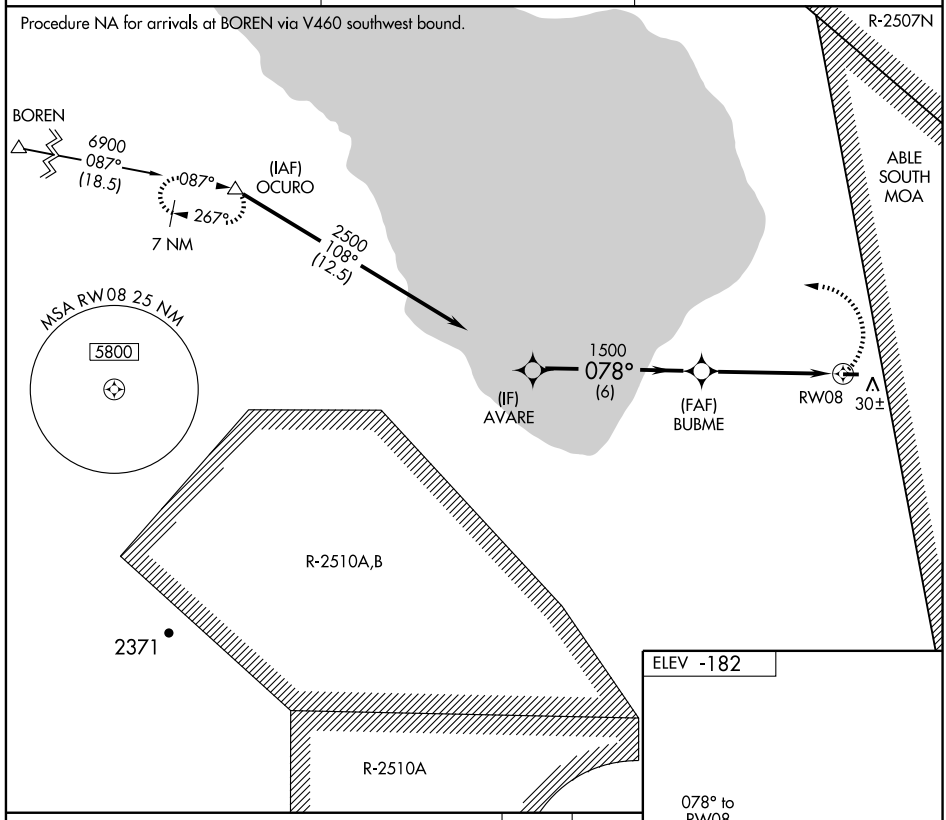
CALIPATRIA/CLIFF HATFIELD MEMORIAL (CLR)

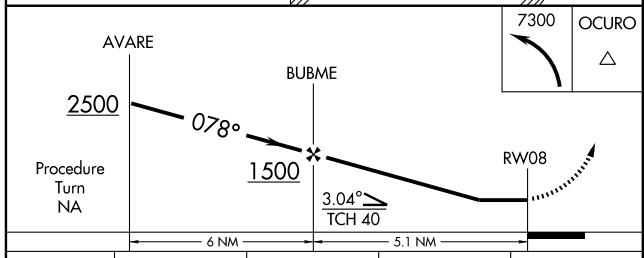
DME/DME RNP-0.3 NA. Procedure NA at night.
Visibility reduction by helicopters NA.
NA Use Imperial altimeter setting, when not received, procedure NA.

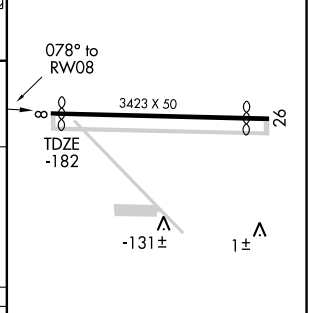
MISSED APPROACH: Climbing left turn to 7300 direct OCURO and hold, continue climb-in-hold to 7300.

IMPERIAL ASOS	LOS ANGELES CENTER	CTAF
132.175	128.6 291.7	122.9

Procedure NA for arrivals at BOREN via V460 southwest bound.

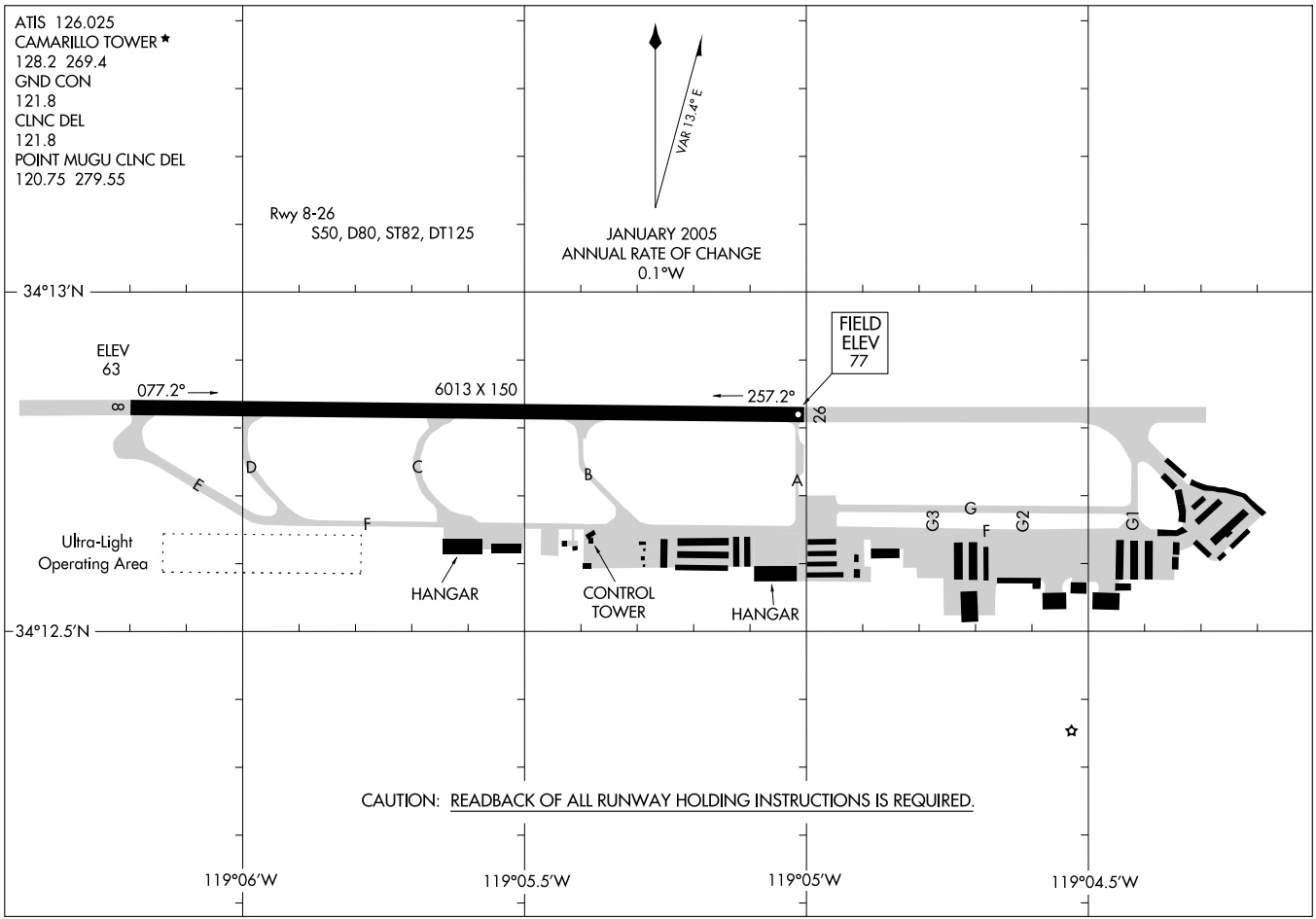






CATEGORY	A	B	C	D
LNAV MDA	300-1 482 (500-1)		300-1¼ 482 (500-1¼)	NA
CIRCLING	440-1 622 (700-1)		440-1¾ 622 (700-1¾)	NA

SW-3, 14 JAN 2010 to 11 FEB 2010



08137

AIRPORT DIAGRAM

AL-680 (FAA)

CAMARILLO (CMA)

CAMARILLO, CALIFORNIA

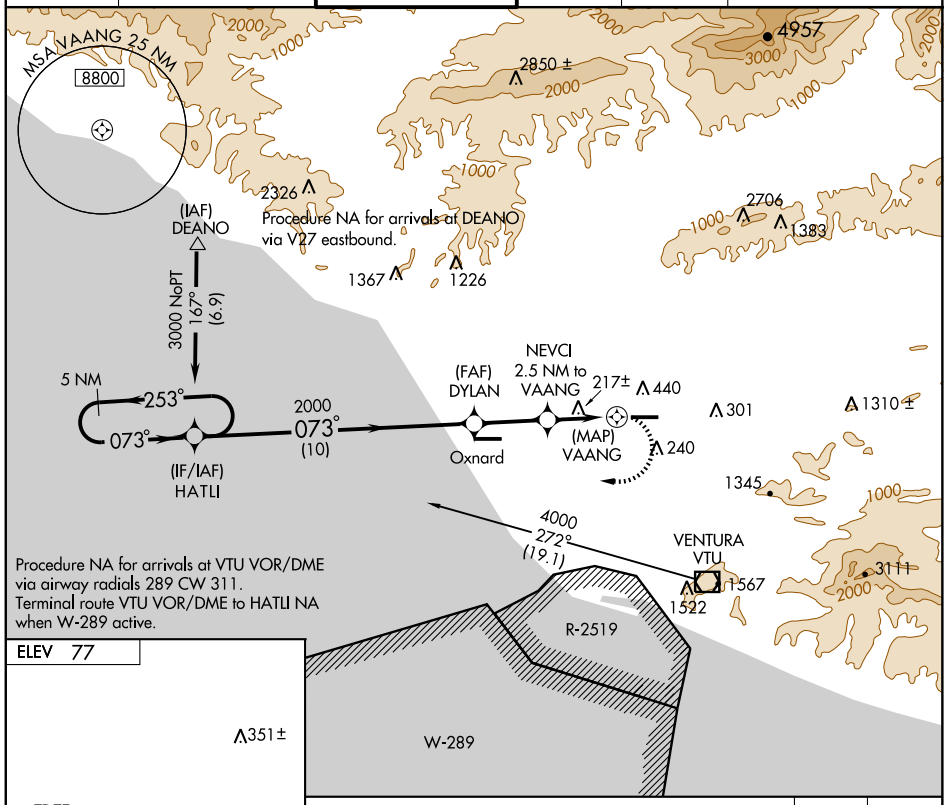
APP CRS	Rwy Idg	6013
073°	TDZE	68
	Apt Elev	77

RNAV (GPS) RWY 8
CAMARILLO (CMA)

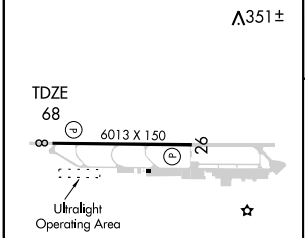
Circling NA north of Rwy 8-26. DME/DME RNP-0.3 NA. If local altimeter setting not received, use Oxnard altimeter setting and increase all MDAs 20 feet. VDP NA when using Oxnard altimeter setting.

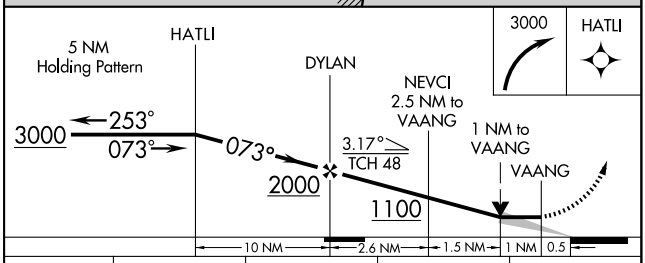
MISSED APPROACH: Climbing right turn to 3000 direct HATLI and hold.

ATIS	POINT MUGU APP CON ★	CAMARILLO TOWER ★	GND CON	CLNC DEL	POINT MUGU CLNC DEL
126.025	124.7 335.5	128.2 (CTAF) L 269.4	121.8	121.8	120.75 279.55



ELEV 77





CATEGORY	A	B	C	D
LNAV MDA	600-1 532 (600-1)		600-1½ 532 (600-1½)	600-1¾ 532 (600-1¾)
CIRCLING	600-1 523 (600-1)		600-1½ 523 (600-1½)	640-2 563 (600-2)

REIL Rwys 8 and 26 L
MIRL Rwy 8-26 L

SW-3, 14 JAN 2010 to 11 FEB 2010

CAMARILLO, CALIFORNIA AL-680 (FAA)

RNAV (GPS) Y RWY 26

CAMARILLO (CMA)

APP CRS	Rwy Idg	6013
252°	TDZE	77
	Apt Elev	77

Circling NA north of Rwy 8-26. DME/DME RNP-0.3 NA. If local altimeter setting not received, use Oxnard altimeter setting and increase all MDAs 20 feet. VDP NA when using Oxnard altimeter setting.

MISSED APPROACH: Climb to 3000 direct LECIK and via 254° track to HATLI and hold.

ATIS	POINT MUGU APP CON ★	CAMARILLO TOWER ★	GND CON	CLNC DEL	POINT MUGU CLNC DEL
126.025	124.7 335.5	128.2 (CTAF) L 269.4	121.8	121.8	120.75 279.55

MISSED APCH FIX

5 NM

253°

073°

HATLI

Procedure NA for arrivals at SUANA via V326 eastbound and arrivals at SESPE via V186-597 westbound.

2897 2706 1383 (IAF) SESPE 3747 2714 1226 (MAP) WAVVS CUCAV 4 NM to WAAVS (FAF) JEZZE AHIYI (IF) NACIC 2314 LECIK 440 321± 1310± 3300 252° (3.5) 4000 262° (4.2) (IAF) SUANA 254° Oxnard 240 1499± 2800 252° (2.8) 1568 2403 4000 341° (7.2) 1345 1522 1567 3111 (IAF) KITEC 2824 2469 2908 5000 329° (4.5) SADDE R-2519 W-289 MSA WAVVS 25 NM 8800

ELEV 77

351±

252° to WAVVS

TDZE 77

6013 X 150

26

Ultralight Operating Area

3000 LECIK 254° track HATLI

VGSI and descent angles not coincident.

*1720 when using Oxnard altimeter setting

NACIC AHIYI JEZZE CUCAV 4 NM to WAVVS 1.1 NM to WAVVS WAVVS 3.30° TCH 48 1700* 2800 3300 252° 4000 Procedure Turn NA

0.5 1.1 2.9 NM 3.2 NM 2.8 NM 3.5 NM

CATEGORY	A	B	C	D
LNAV MDA	620-1 543 (600-1)		620-1½ 543 (600-1½)	620-1¾ 543 (600-1¾)
CIRCLING	620-1 543 (600-1)		620-1½ 543 (600-1½)	640-2 563 (600-2)

REIL Rwys 8 and 26 L

MIRL Rwy 8-26 L

SW-3, 14 JAN 2010 to 11 FEB 2010

CAMARILLO, CALIFORNIA AL-680 (FAA)

WAAS	APP CRS	Rwy Idg	6013
CH 58202	257°	TDZE	77
W26A		Apt Elev	77

RNAV (GPS) Z RWY 26
CAMARILLO (CMA)

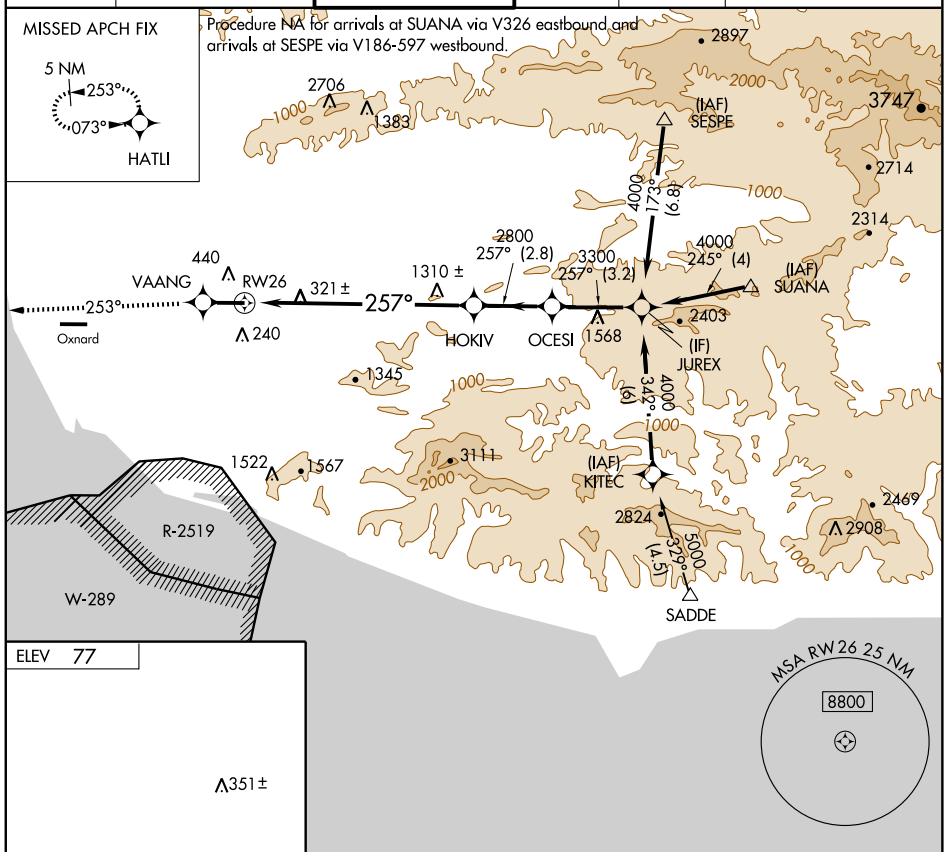
DME/DME RNP -0.3 NA.
If local altimeter setting not received, use Oxnard altimeter setting and increase DA 18 feet.

MISSED APPROACH: Climb to 3000 direct VAANG and via 253° track to HATLI and hold.

ATIS	POINT MUGU APP CON ★	CAMARILLO TOWER ★	GND CON	CLNC DEL	POINT MUGU CLNC DEL
126.025	124.7 335.5	128.2 (CTAF) L 269.4	121.8	121.8	120.75 279.55

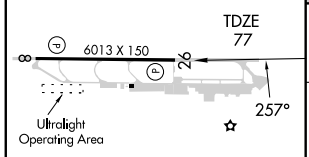
MISSED APCH FIX
5 NM
253°
073°
HATLI

Procedure NA for arrivals at SUANA via V326 eastbound and arrivals at SESPE via V186-597 westbound.



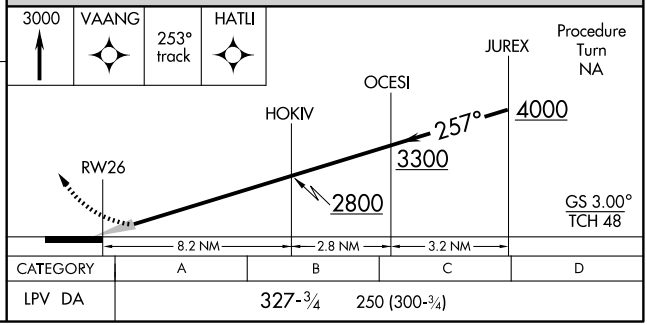
ELEV 77

351 ±



REIL Rwys 8 and 26 L
MIRL Rwy 8-26 L

MSA RW 26 25 NM
8800



CATEGORY	A	B	C	D
LPV DA	327-¾	250 (300-¾)		

SW-3, 14 JAN 2010 to 11 FEB 2010

CAMARILLO, CALIFORNIA

AL-680 (FAA)

VOR/DME CMA 115.8 Chan 105	APP CRS 247°	Rwy Idg 6013 TDZE 77 Apt Elev 77

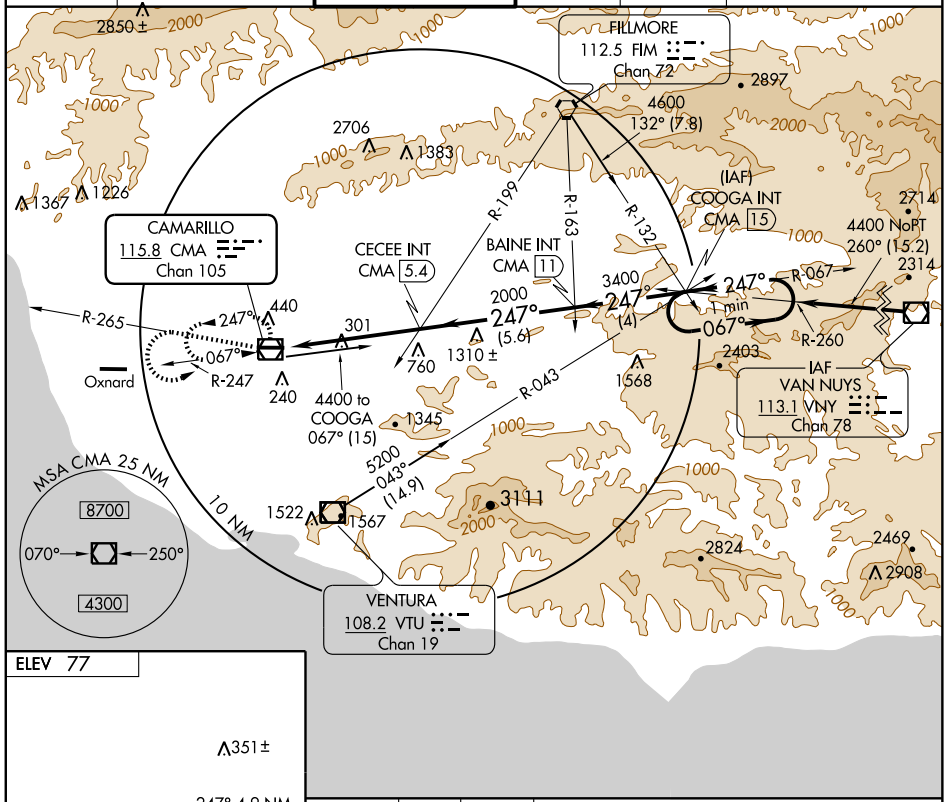
VOR RWY 26

CAMARILLO (CMA)

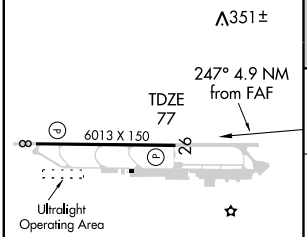
Circling not authorized north of Rwy 8/26.

MISSED APPROACH: Climb to 2000 via CMA R-265 then climbing left turn to 4400 direct CMA VOR/DME and hold.

ATIS	POINT MUGU APP CON ★	CAMARILLO TOWER ★	GND CON	CLNC DEL	POINT MUGU CLNC DEL
126.025	124.7 335.5	128.2 (CTAF) L 269.4	121.8	121.8	120.75 279.55



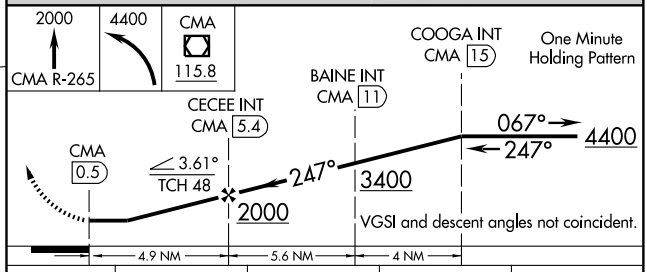
ELEV 77



MIRL Rwy 8-26 L

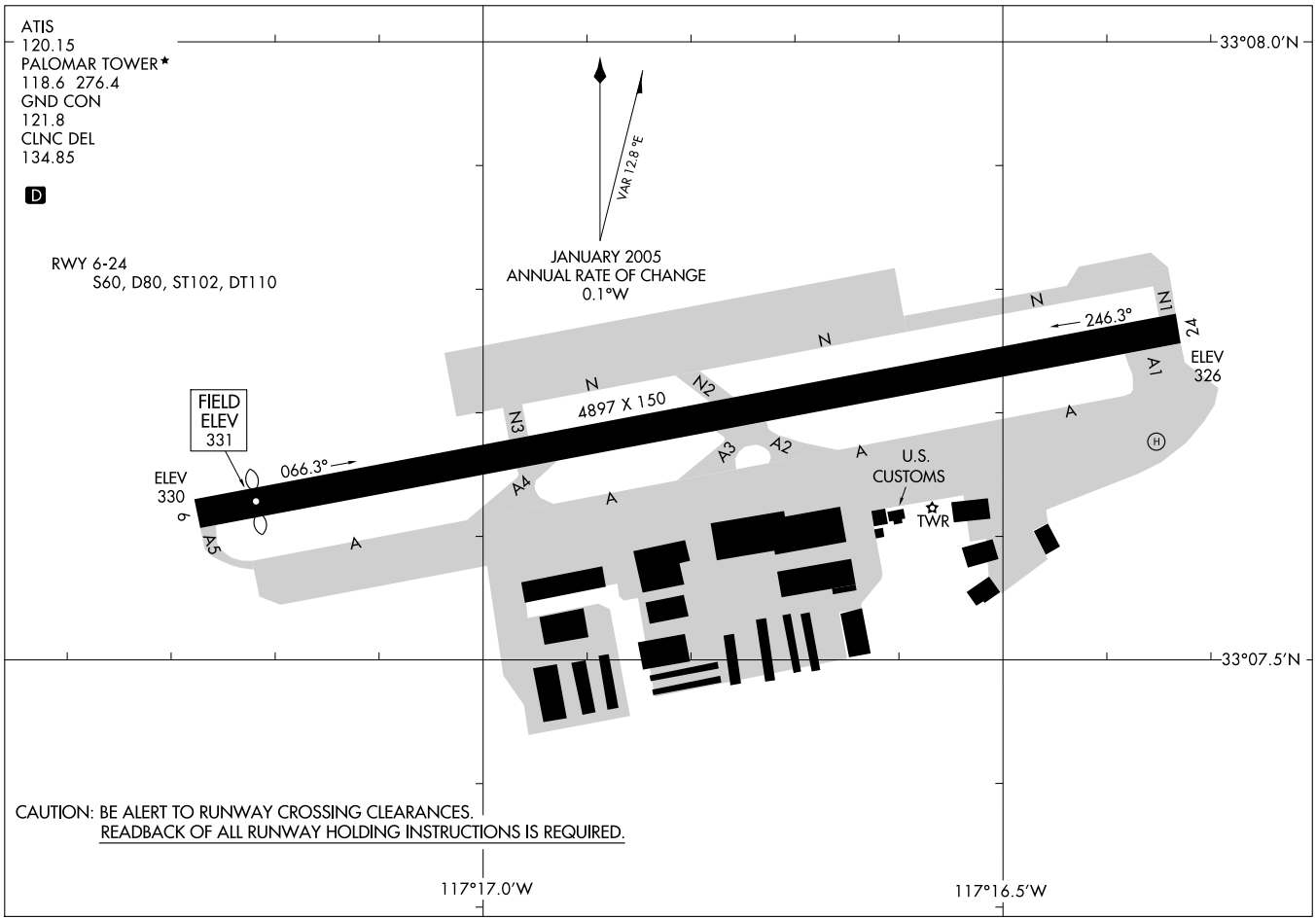
REIL Rwys 8 and 26 L

FAF to MAP 4.9 NM					
Knots	60	90	120	150	180
Min:Sec	4:54	3:16	2:27	1:58	1:38



CATEGORY	A	B	C	D
S-26	1100-1¼ 1023 (1100-1¼)	1100-1½ 1023 (1100-1½)	1100-3 1023 (1100-3)	NA
CIRCLING	1100-1¼ 1023 (1100-1¼)	1100-1½ 1023 (1100-1½)	1100-3 1023 (1100-3)	NA

SW-3, 14 JAN 2010 to 11 FEB 2010



AIRPORT DIAGRAM

AL-5310 (FAA)

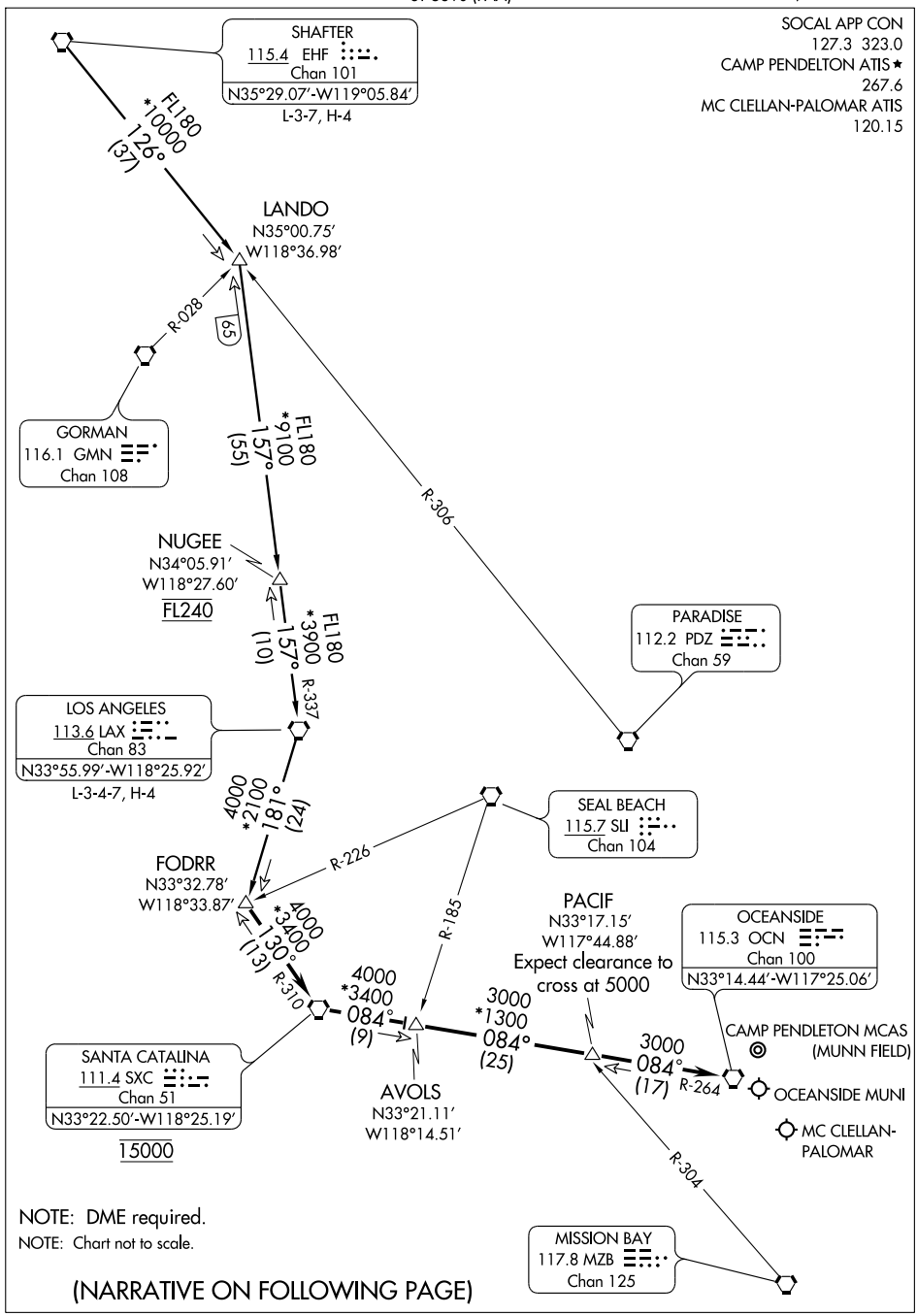
CARLSBAD/MC CLELLAN-PALOMAR (CRQ)

CARLSBAD, CALIFORNIA

FODRR ONE ARRIVAL

ST-5310 (FAA)

CARLSBAD, CALIFORNIA



NOTE: DME required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

ARRIVAL ROUTE DESCRIPTION

LOS ANGELES TRANSITION (LAX.FODRR1): From over LAX VORTAC via LAX R-181 to FODRR INT/DME FIX. Thence....
SHAFTER TRANSITION (EHF.FODRR1): From over EHF VORTAC via EHF R-126 and LAX R-337 to LAX VORTAC, then via LAX R-181 to FODRR INT/DME FIX. Thence....

....From over FODRR INT/DME FIX via SXC R-310 to SXC VORTAC, cross SXC VORTAC at 15000, then via SXC R-084 to AVOLS INT/DME FIX, then via SXC R-084 and OCN R-264 to PACIF INT/DME FIX, then via OCN R-264 to OCN VORTAC. Thence....

....LANDING CARLSBAD/MC CLELLAN-PALOMAR: From over OCN VORTAC expect the ILS or LOC RWY 24 approach.
....LANDING CAMP PENDLETON MCAS (MUNN FIELD): From over OCN VORTAC expect the VOR/DME or TACAN RWY 21 approach.
....LANDING OCEANSIDE MUNI: From over OCN VORTAC expect the VOR-A approach.

SW-3. 14 JAN 2010 to 11 FEB 2010

CARLSBAD, CALIFORNIA AL-5310 (FAA)

LOC I-CRQ	APP CRS	Rwy Idg	4897
108.7	245°	TDZE	326
		Apt Elev	331

ILS or LOC RWY 24

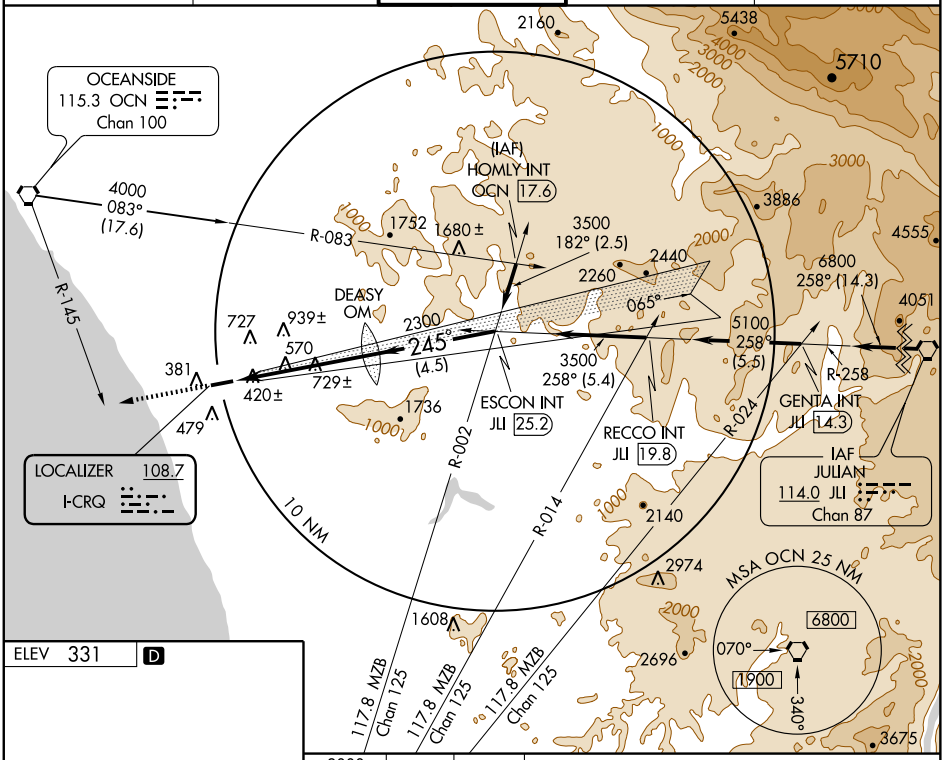
CARLSBAD/MC CLELLAN-PALOMAR (CRQ)

Inoperative table does not apply to S-ILS 24.
For inoperative MALSR increase S-ILS 24 Cat C visibility to RVR 5000. Increase S-LOC 24 Cat A/B visibility to RVR 5000.

MALSR

MISSED APPROACH: Climb to 3000 via heading 245° and OCN R-145 to OCN VORTAC.

ATIS	SOCAL APP CON	PALOMAR TOWER★	GND CON	CLNC DEL
120.15	127.3 323.0	118.6 (CTAF) L 276.4	121.8	134.85



REIL Rwy 24 L
HIRL Rwy 6-24 L

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

CATEGORY	A	B	C	D
S-ILS 24	526/40	200 (200-¾)	576/40 250 (300-¾)	NA
S-LOC 24	1000/40	674 (700-¾)	1000-1½ 674 (700-1½)	NA
CIRCLING	1000-1	669 (700-1)	1080-2¼ 749 (800-2¼)	NA

SW-3, 14 JAN 2010 to 11 FEB 2010

CARLSBAD, CALIFORNIA

AL-5310 (FAA)

WAAS CH 65603 W24A	APP CRS 245°	Rwy Idg 4897 TDZE 326 Apt Elev 331

RNAV (GPS) RWY 24

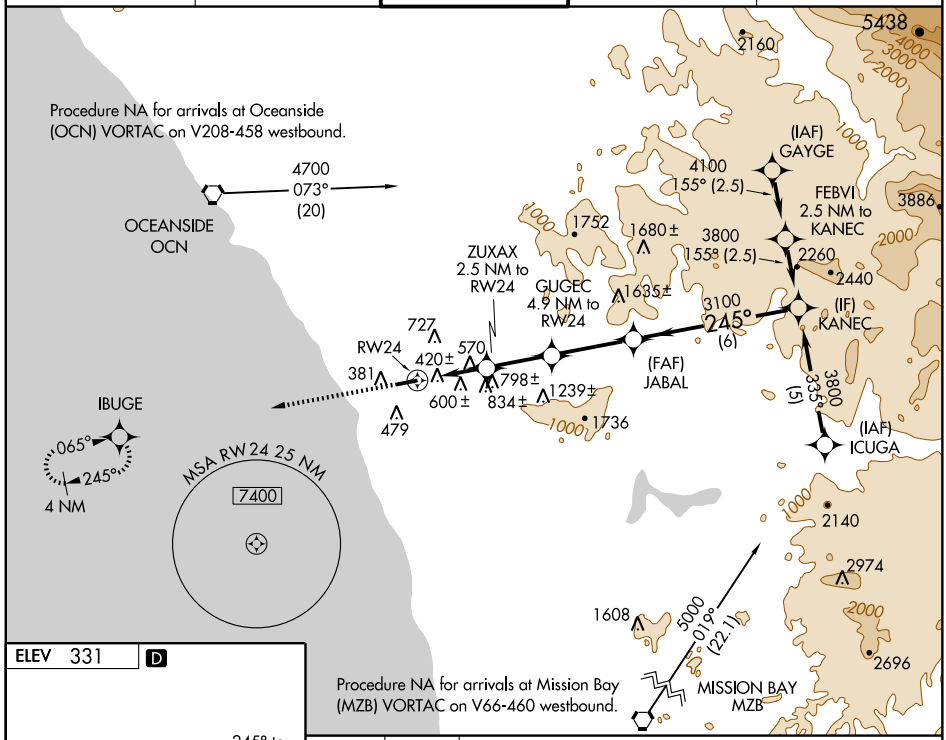
CARLSBAD/MC CLELLAN-PALOMAR (CRQ)

DME/DME RNP-0.3 NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F).

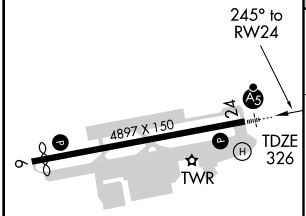
MALSR

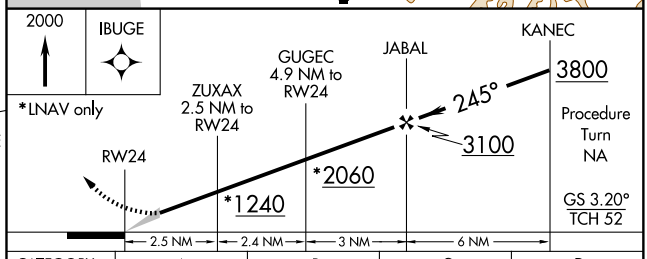
MISSED APPROACH: Climb to 2000 direct IBUGE WP and hold.

ATIS	SOCAL APP CON	PALOMAR TOWER★	GND CON	CLNC DEL
120.15	127.3 323.0	118.6 (CTAF) L 276.4	121.8	134.85



ELEV 331 D





CATEGORY	A	B	C	D
LPV DA	737/40 411 (500-¾)			NA
LNAV/VNAV DA	1387-2 1061 (1100-2)		1387-3 1061 (1100-3)	NA
LNAV MDA	1100/40 774 (800-¾)		1100-1¾ 774 (800-1¾)	NA
CIRCLING	1100-1 769 (800-1)	1100-1¼ 769 (800-1¼)	1100-2¼ 769 (800-2¼)	NA

REIL Rwy 24 L
HIRL Rwy 6-24 L

SW-3, 14 JAN 2010 to 11 FEB 2010

CARLSBAD, CALIFORNIA

AL-5310 (FAA)

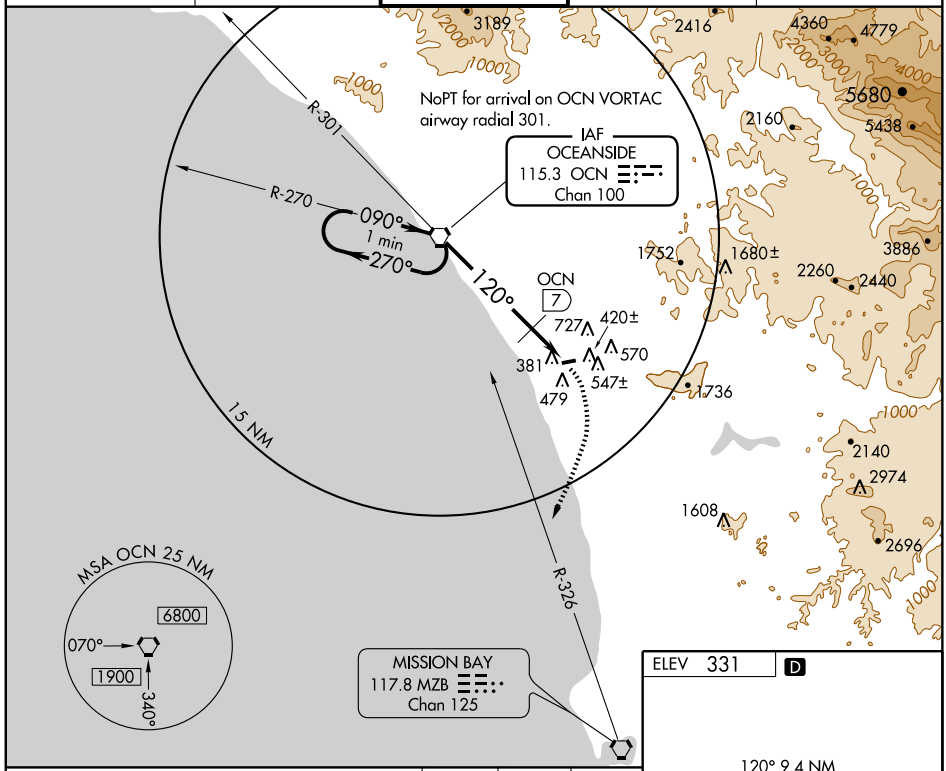
VORTAC OCN 115.3 Chan 100	APP CRS 120°	Rwy Idg N/A TDZE N/A Apt Elev 331

VOR-A

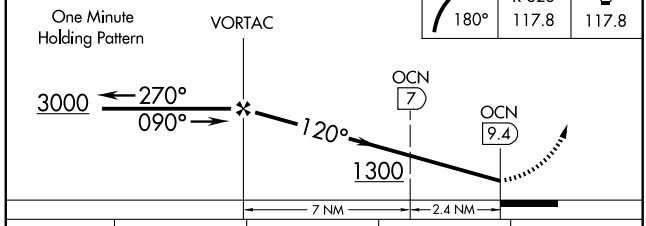
CARLSBAD/MC CLELLAN-PALOMAR (CRQ)

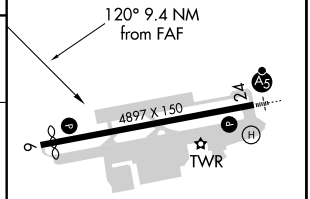
MISSED APPROACH: Climbing right turn to 3000 via heading 180° and MZB R-326 to MZB VORTAC.

ATIS	SOCAL APP CON	PALOMAR TOWER★	GND CON	CLNC DEL
120.15	127.3 323.0	118.6 (CTAF) L 276.4	121.8	134.85



3000 180°	MZB R-326 117.8	MZB 117.8





CATEGORY	A	B	C	D
CIRCLING	1300-1¼ 969 (1000-1¼)	1300-1½ 969 (1000-1½)	1300-3 969 (1000-3)	NA
DME MINIMUMS				
CIRCLING	860-1 529 (600-1)	1000-1 669 (700-1)	1080-2¼ 749 (800-2¼)	NA

REIL Rwy 24 L
HIRL Rwy 6-24 L

FAF to MAP 9.4 NM

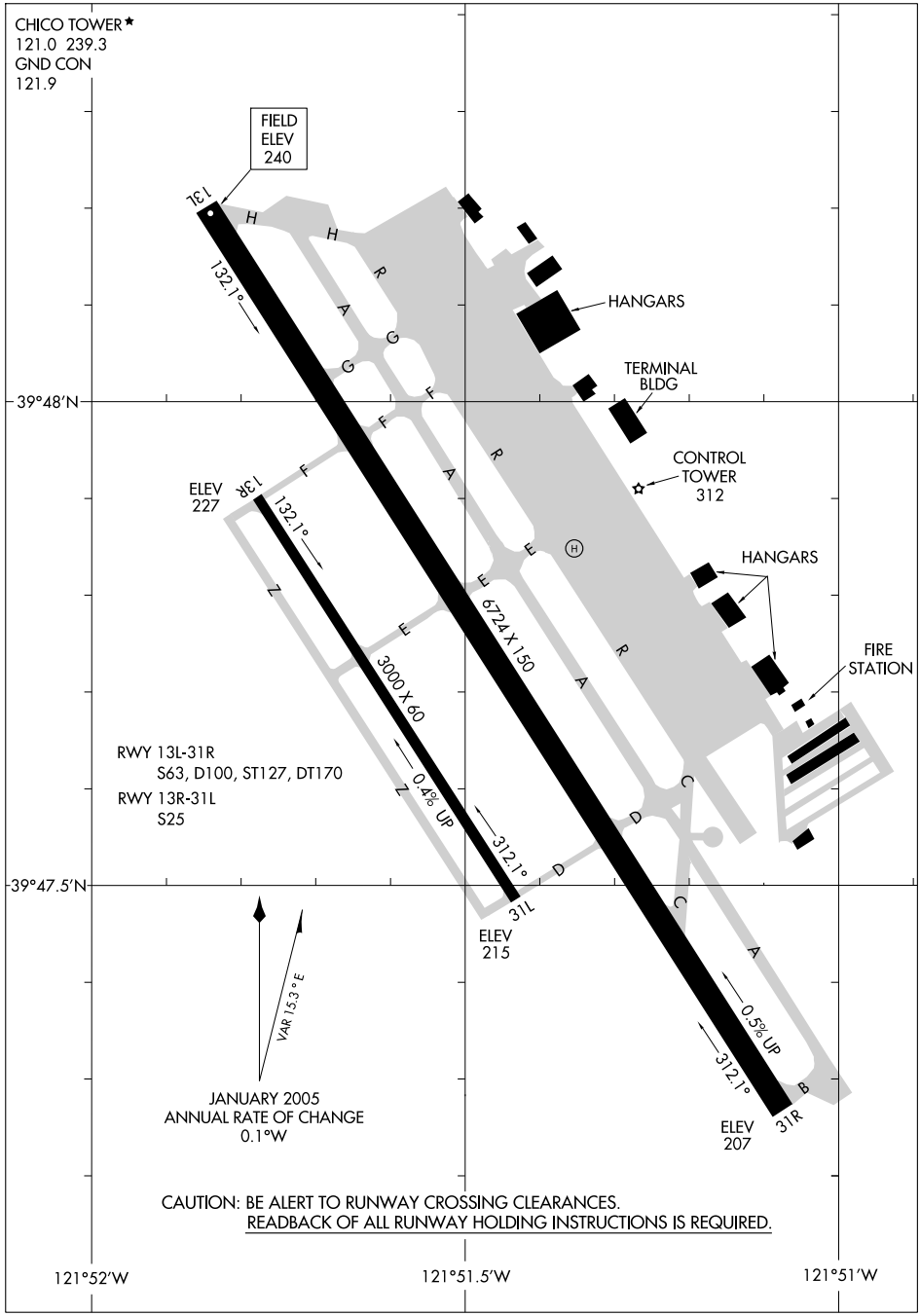
Knots	60	90	120	150	180
Min:Sec	9:24	6:16	4:42	3:46	3:08

SW-3, 14 JAN 2010 to 11 FEB 2010

AIRPORT DIAGRAM

AL-557 (FAA)

CHICO MUNI (CIC)
CHICO, CALIFORNIA



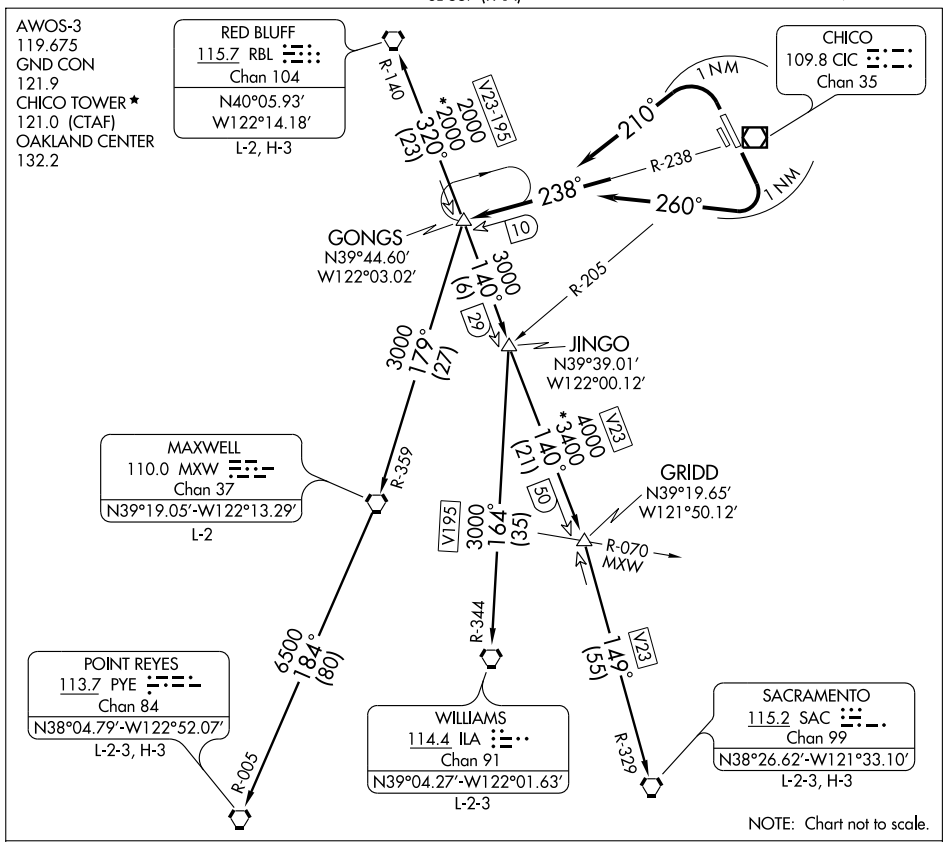
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

SW-2, 14 JAN 2010 to 11 FEB 2010

GONGS ONE DEPARTURE

SL-557 (FAA)

CHICO MUNI (CIC)
CHICO, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 13L/R: Turn right heading 260° within 1 NM of take-off; intercept CIC R-238 to GONGS INT. Thence....

TAKE-OFF RUNWAYS 31L/R: Turn left heading 210° within 1 NM of take-off; intercept CIC R-238 to GONGS INT. Thence....

....via (transition) or (assigned route).

MAXWELL TRANSITION (GONGS1.MXW): From over GONGS INT via MXW R-359 to MXW VORTAC.

POINT REYES TRANSITION (GONGS1.PYE): From over GONGS INT via MXW R-359 to MXW VORTAC; then via MXW R-184 and PYE R-005 to PYE VORTAC.

RED BLUFF TRANSITION (GONGS1.RBL): From over GONGS INT via RBL R-140 to RBL VORTAC.

SACRAMENTO TRANSITION (GONGS1.SAC): From over GONGS INT via V23 and SAC R-329 to SAC VORTAC.

WILLIAMS TRANSITION (GONGS1.ILA): From over GONGS INT via RBL R-140 and V195 to ILA VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC I-CIC	APP CRS	Rwy Idg	6724
111.3	131°	TDZE	240
		Apt Elev	240

ILS or LOC/DME RWY 13L

CHICO MUNI (CIC)

T
A NA

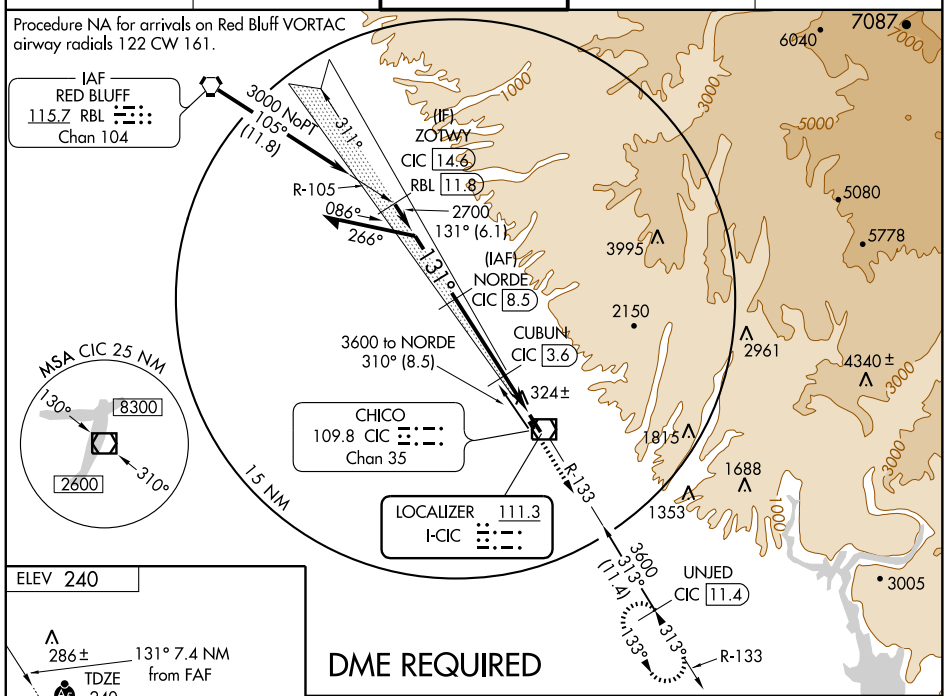
Circling NA east of Rwy 13L/31R. DME from CIC VOR/DME. Simultaneous reception of I-CIC and CIC DME required. When local altimeter setting not received, use Red Bluff Muni altimeter setting and increase all DA 81 feet and all MDA 100 feet. Increase S-LOC 13L Cat. C and D visibility ¼ mile. For inoperative MALSR, increase S-LOC Cat. D visibility ¼ mile. For inoperative MALSR when using Red Bluff Muni altimeter setting, increase S-ILS 13L all Cats. visibility ½ mile.

MALSR

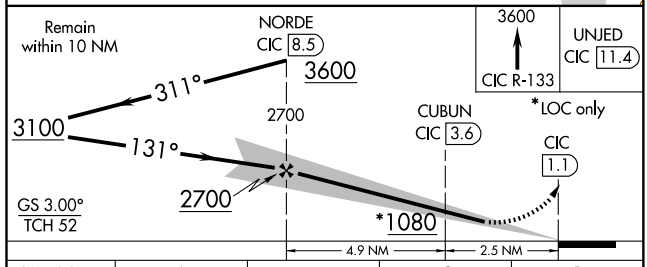
MISSED APPROACH: Climb to 3600 via CIC VOR/DME R-133 to UNJED/ CIC 11.4 DME and hold, continue climb-in-hold to 3600.

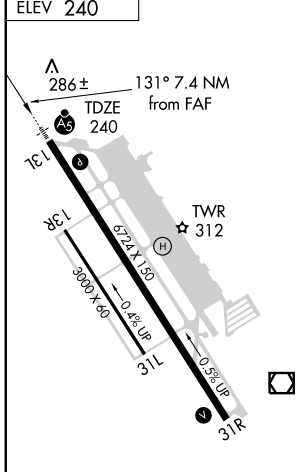
AWOS-3	OAKLAND CENTER	CHICO TOWER*	GND CON	UNICOM
119.675	132.2 350.3	121.0 (CTAF) L 239.3	121.9	122.95

Procedure NA for arrivals on Red Bluff VORTAC airway radials 122 CW 161.



DME REQUIRED





REIL Rwy 31R
HIRL Rwy 13L-31R L

CATEGORY	A	B	C	D
S-ILS 13L	440-½ 200 (200-½)			
S-LOC 13L	580-½ 340 (400-½)			580-¾ 340 (400-¾)
CIRCLING	640-1 400 (400-1)	700-1 460 (500-1)	700-1½ 460 (500-1½)	800-2 560 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	6724
CH 65912	131°	TDZE	240
W13A		Apt Elev	240

RNAV (GPS) RWY 13L
CHICO MUNI (CIC)

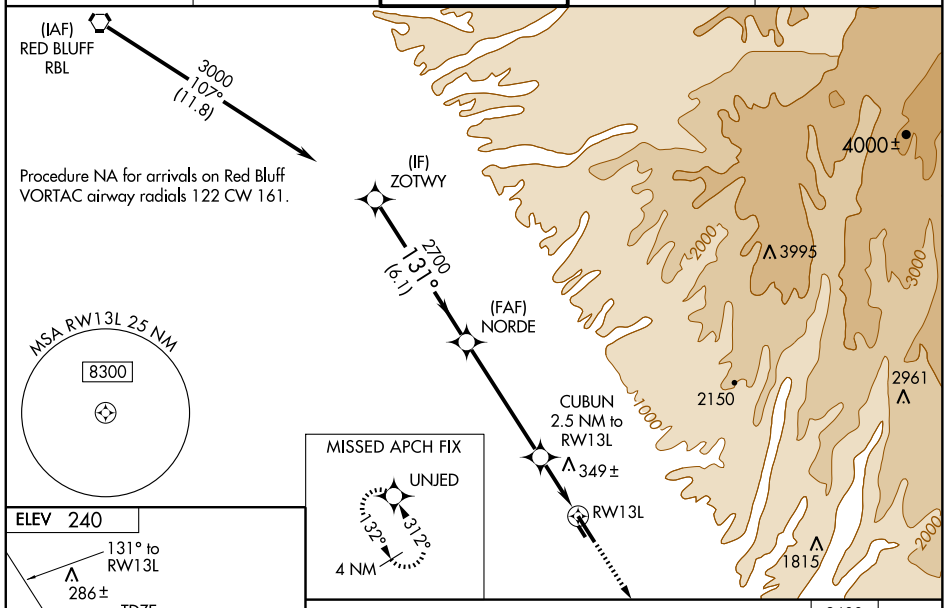
NA

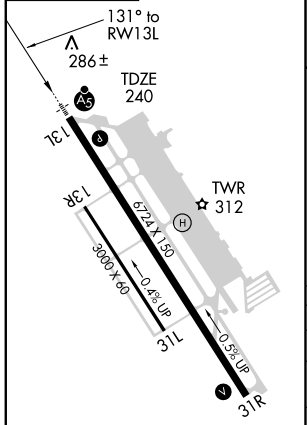
Inoperative table does not apply to LPV and LNAV Cats A/B/C. For inoperative MALSR, increase LNAV Cat D visibility to 1¼. Circling NA east of Rwy 13L/31R. Baro-VNAV NA when using Red Bluff altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Red Bluff Muni altimeter setting and increase all DA 81 feet, and all MDA 100 feet, increase LNAV/VNAV all Cats visibility ¼ mile. For inoperative MALSR when using Red Bluff altimeter setting, LNAV Cats A/B inoperative table does not apply, increase Cat C visibility ¼ mile.

MALSR

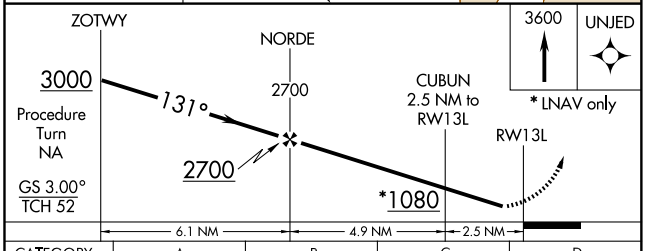
MISSED APPROACH: Climb to 3600 direct UNJED and hold, continue climb-in-hold to 3600.

AWOS-3	OAKLAND CENTER	CHICO TOWER ★	GND CON	UNICOM
119.675	132.2 350.3	121.0 (CTAF) L 239.3	121.9	122.95





REIL Rwy 31R
HIRL Rwy 13L-31R L



CATEGORY	A	B	C	D
LPV DA	536-1	296 (300-1)		
LNAV/VNAV DA	648-1	408 (500-1)		
LNAV MDA	600-1	360 (400-1)		
CIRCLING	640-1 400 (500-1)	700-1 460 (500-1)	700-1½ 460 (500-1½)	800-2 560 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	6724
CH 77912	311°	TDZE	226
W31A		Apt Elev	240

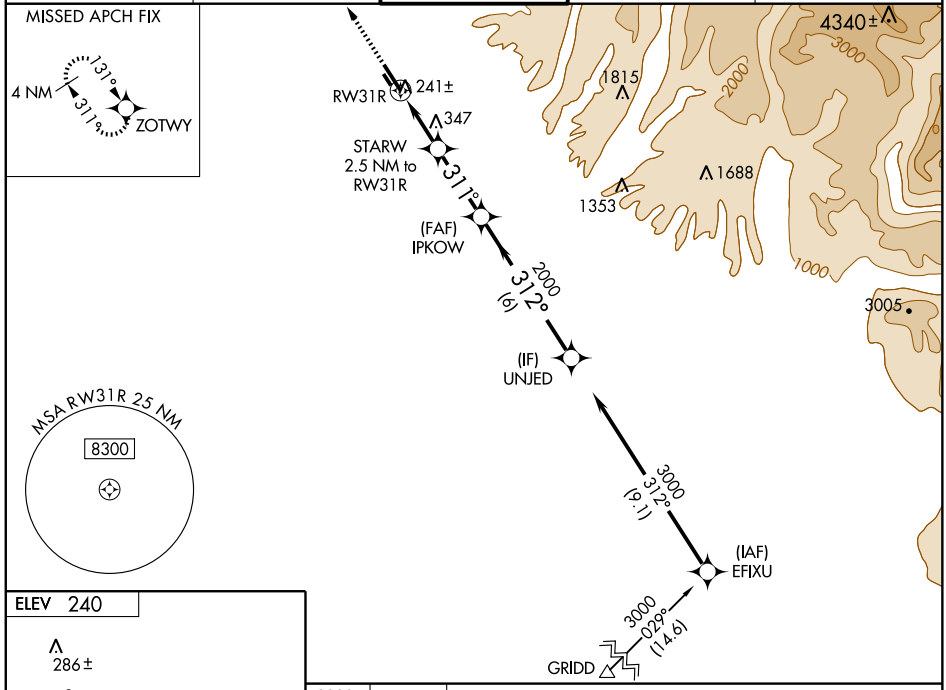
RNAV (GPS) RWY 31R
CHICO MUNI (CIC)

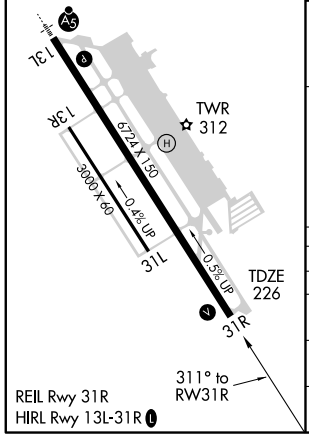
Circling NA east of Rwy 13L/31R. Baro-VNAV NA when using Red Bluff altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Red Bluff altimeter setting and increase all DA 81 feet and MDA 100 feet and increase LPV visibility all Cats ¼ mile, visibility LNAV/VNAV all Cats ½ mile and visibility LNAV Cats C/D ¼ mile. VDP NA when using Red Bluff altimeter setting.

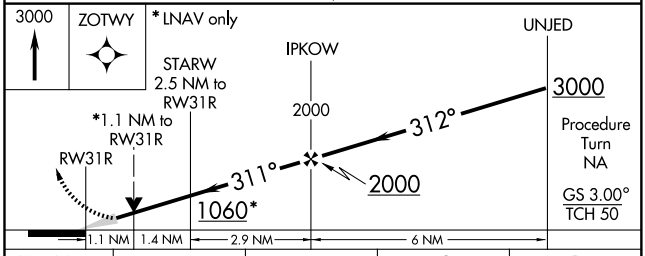
MISSED APPROACH: Climb to 3000 direct ZOTWY and hold.

AWOS-3	OAKLAND CENTER	CHICO TOWER★	GND CON	UNICOM
119.675	132.2 350.3	121.0 (CTAF) L 239.3	121.9	122.95

MISSED APCH FIX







CATEGORY	A	B	C	D
LPV DA	476-1 250 (300-1)			
LNAV/VNAV DA	733-1¾ 507 (500-1¾)			
LNAV MDA	600-1 374 (400-1)			600-1¼ 374 (400-1¼)
CIRCLING	640-1 400 (400-1)	700-1 460 (500-1)	700-1½ 460 (500-1½)	800-2 560 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME CIC	APP CRS	Rwy Idg	6724
109.8 Chan 35	122°	TDZE	238
		Apt Elev	238

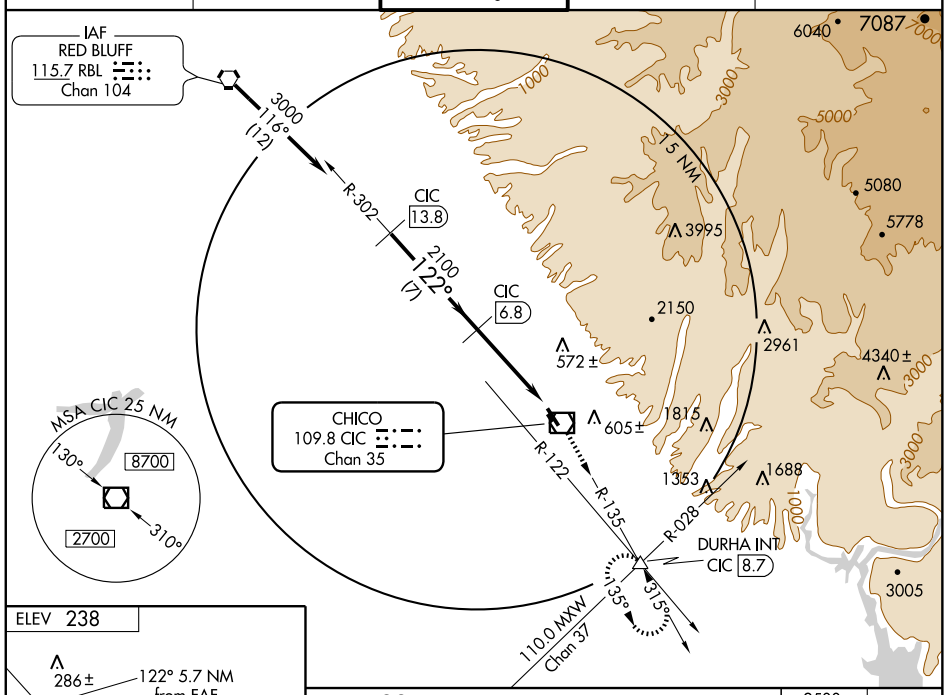
VOR/DME RWY 13L
CHICO MUNI (CIC)

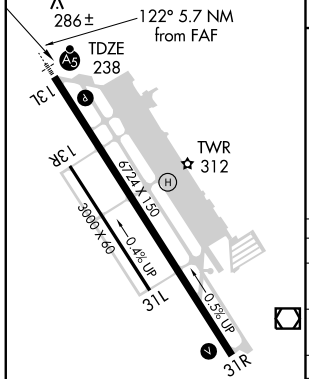
Circling not authorized east of Rwy 13L-31R.
When control tower closed, except for operators with approved weather reporting service, use Red Bluff altimeter setting.
Local altimeter setting minimums: for inoperative MALSR, increase S-13L Cat. D visibility to 1¼ .
VDP NA when using Red Bluff altimeter setting.

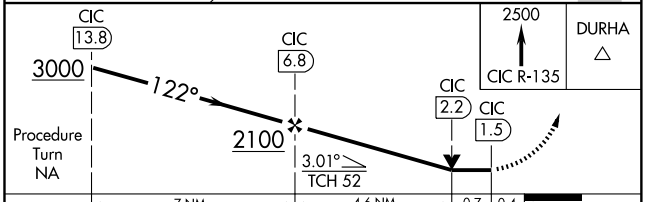
MALSR

MISSED APPROACH: Climb to 2500 via CIC R-135 to DURHA INT/CIC 8.7 DME and hold.

AWOS-3	OAKLAND CENTER	CHICO TOWER ★	GND CON	UNICOM
119.675	132.2 350.3	121.0 (CTAF) L 239.3	121.9	122.95







CATEGORY	A	B	C	D
S-13L	640-½ 402 (500-½)		640-¾ 402 (500-¾)	640-1 402 (500-1)
CIRCLING	640-1 402 (500-1)	700-1 462 (500-1)	700-1½ 462 (500-1½)	800-2 562 (600-2)
RED BLUFF ALTIMETER SETTING MINIMUMS				
S-13L	780-½ 542 (600-½)		780-1 542 (600-1)	780-1¼ 542 (600-1¼)
CIRCLING	780-1 542 (600-1)		780-1½ 542 (600-1½)	800-2 562 (600-2)

REIL Rwy 31R
HIRL Rwy 13L-31R L

SW-2, 14 JAN 2010 to 11 FEB 2010

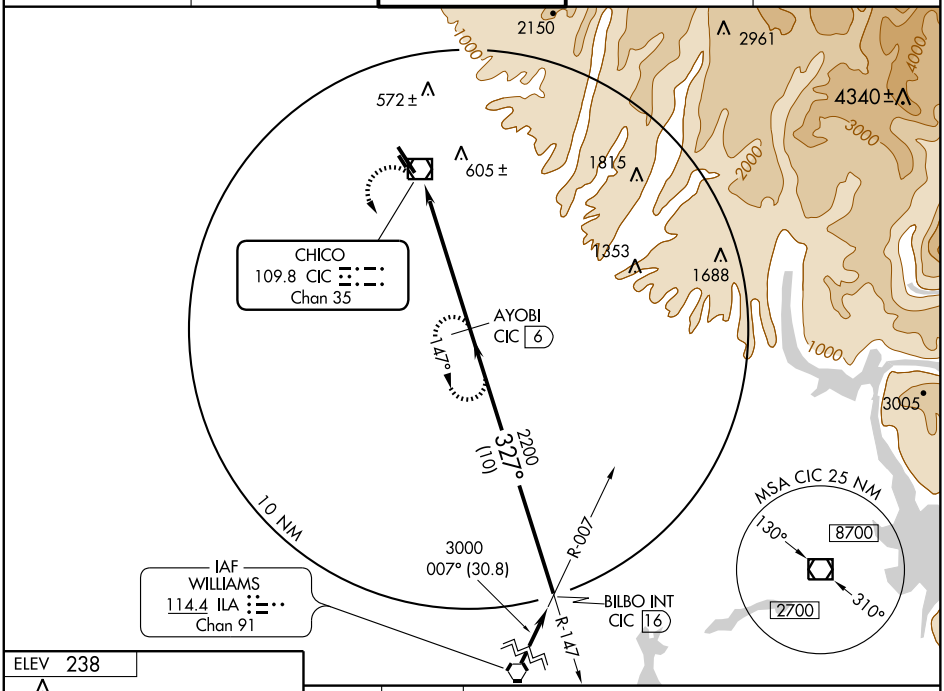
VOR/DME CIC	APP CRS	Rwy Idg	6724
109.8	327°	TDZE	224
Chan 35		Apt Elev	238

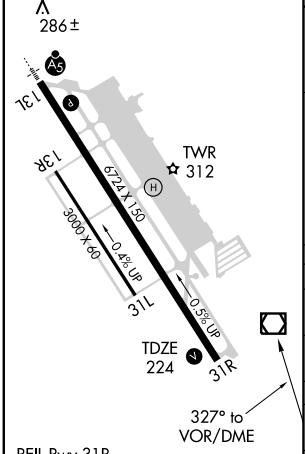
VOR/DME RWY 31R
CHICO MUNI (CIC)

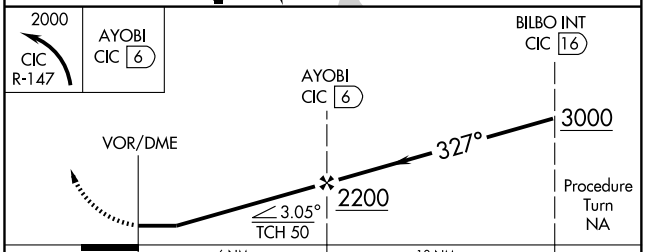
Circling not authorized east of Rwy 13L-31R.
When control tower closed, except for operators with approved weather reporting service, use Red Bluff altimeter setting.

MISSED APPROACH: Climbing left turn to 2000 via CIC R-147 to AYOBI/6 DME and hold.

AWOS-3	OAKLAND CENTER	CHICO TOWER ★	GND CON	UNICOM
119.675	132.2 350.3	121.0 (CTAF) L 239.3	121.9	122.95







CATEGORY	A	B	C	D
S-31R	760-1	536 (600-1)	760-1½ 536 (600-1½)	760-1¾ 536 (600-1¾)
CIRCLING	760-1	522 (600-1)	760-1½ 522 (600-1½)	800-2 562 (600-2)
RED BLUFF ALTIMETER SETTING MINIMUMS				
S-31R	840-1	616 (700-1)	840-1¾ 616 (700-1¾)	840-2 616 (700-2)
CIRCLING	840-1	602 (700-1)	840-1¾ 602 (700-1¾)	840-2 602 (700-2)

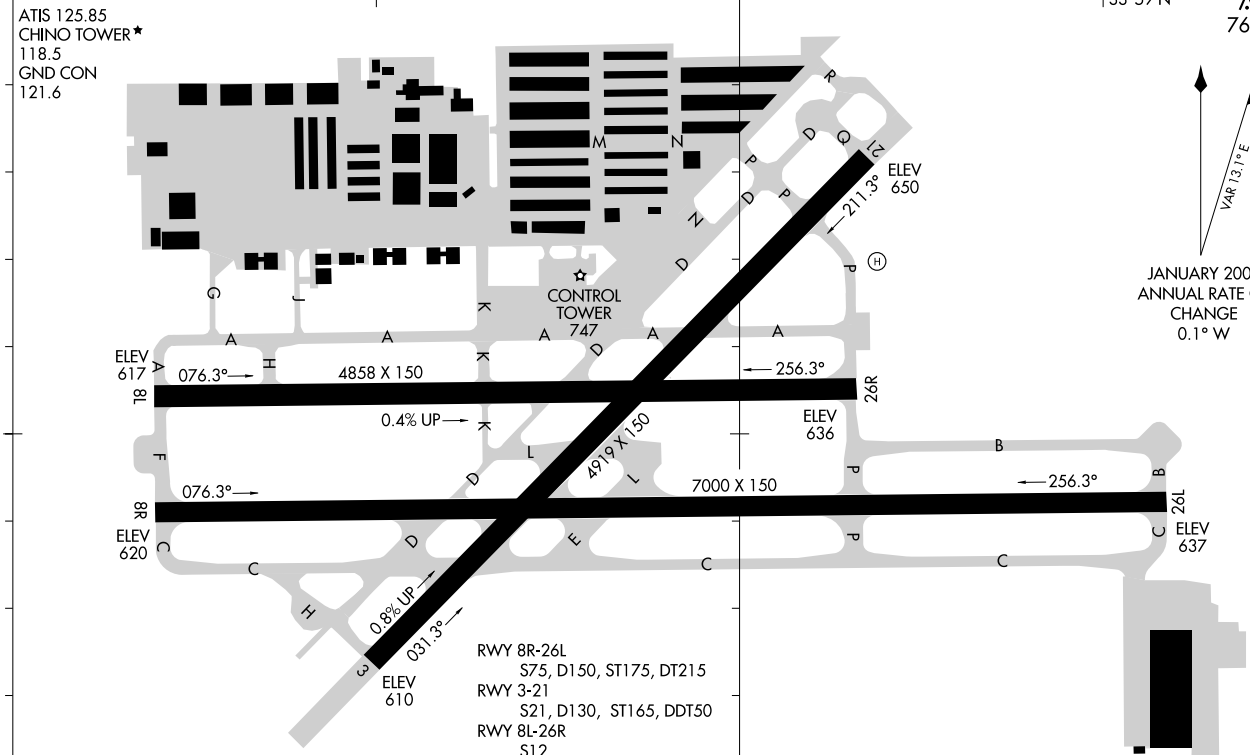
SW-2, 14 JAN 2010 to 11 FEB 2010

AIRPORT DIAGRAM

AL-5599 (FAA)

CHINO (CNO)

CHINO, CALIFORNIA

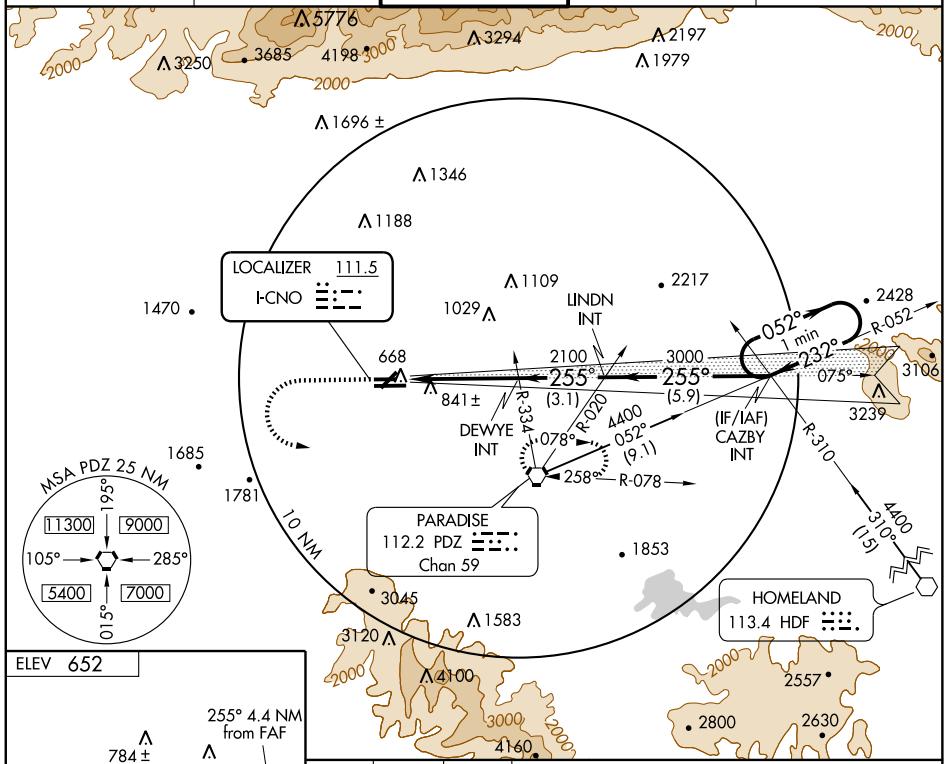


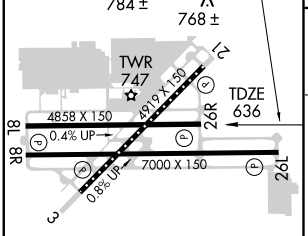
ILS or LOC RWY 26R
CHINO (CNO)

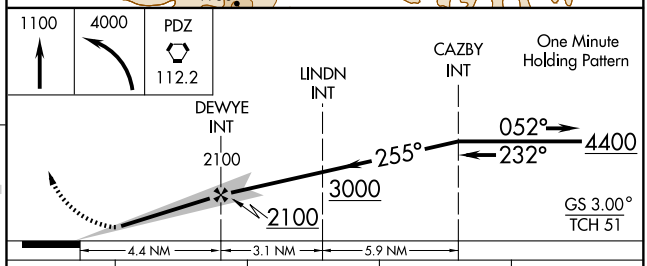
LOC I-CNO	APP CRS	Rwy Idg	4858
111.5	255°	TDZE	636
		Apt Elev	652

MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 direct PDZ VORTAC and hold.

ATIS	SOCAL APP CON	CHINO TOWER ★	GND CON	UNICOM
125.85	135.4 377.125	118.5 (CTAF)	121.6	122.95







REIL Rwys 3 and 21
MIRL Rwys 3-21 and 8R-26L
HIRL Rwy 8L-26R

FAF to MAP 4.4 NM

Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28

CATEGORY	A	B	C	D
S-ILS 26R	886-¾ 250 (300-¾)			
S-LOC 26R	1060-1 424 (500-1)		1060-1¼ 424 (500-1¼)	
CIRCLING	1180-1 528 (600-1)		1180-1½ 528 (600-1½)	1220-2 568 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS CH 97320 W26A	APP CRS 255°	Rwy Idg 4858 TDZE 636 Apt Elev 652

RNAV (GPS) RWY 26R
CHINO (CNO)

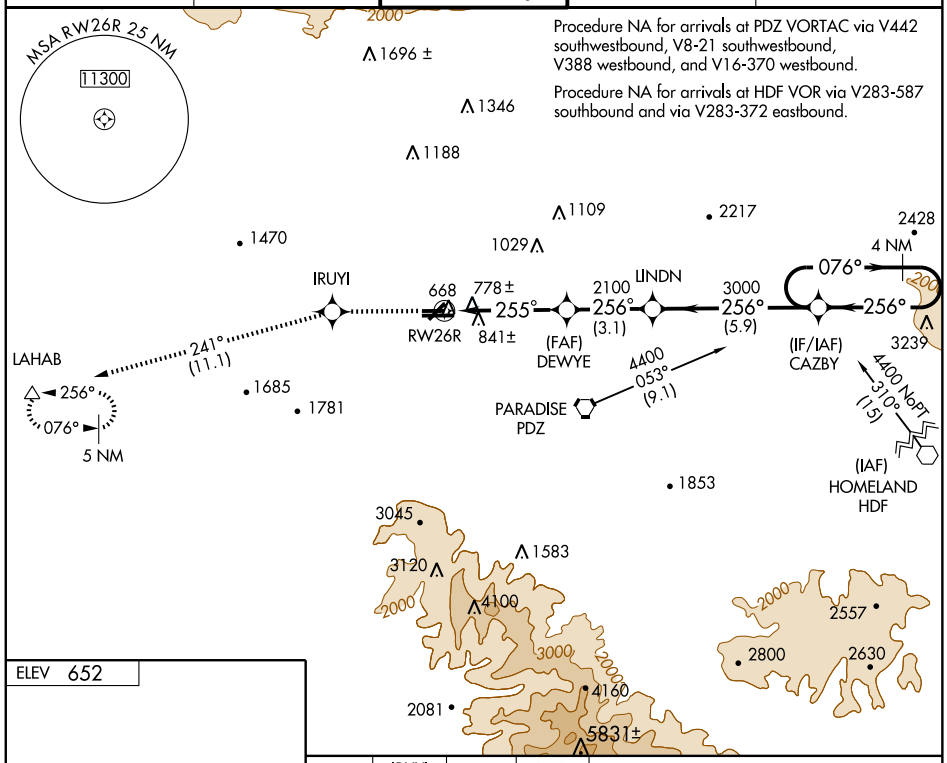
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). DME/DME RNP- 0.3 NA.

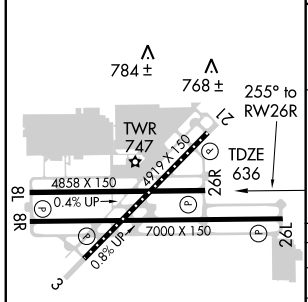
MISSED APPROACH: Climb to 4000 direct IRUYI and via 241° track to LAHAB and hold.

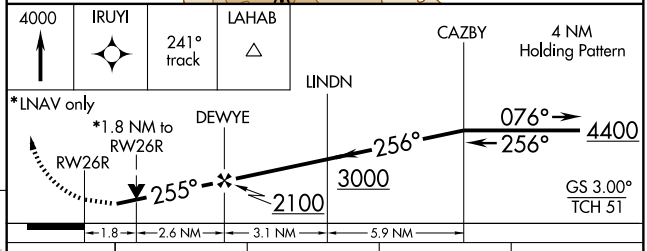
ATIS	SOCAL APP CON	CHINO TOWER★	GND CON	UNICOM
125.85	135.4 377.125	118.5 (CTAF) L	121.6	122.95

Procedure NA for arrivals at PDZ VORTAC via V442 southwestbound, V8-21 southwestbound, V388 westbound, and V16-370 westbound.

Procedure NA for arrivals at HDF VOR via V283-587 southbound and via V283-372 eastbound.



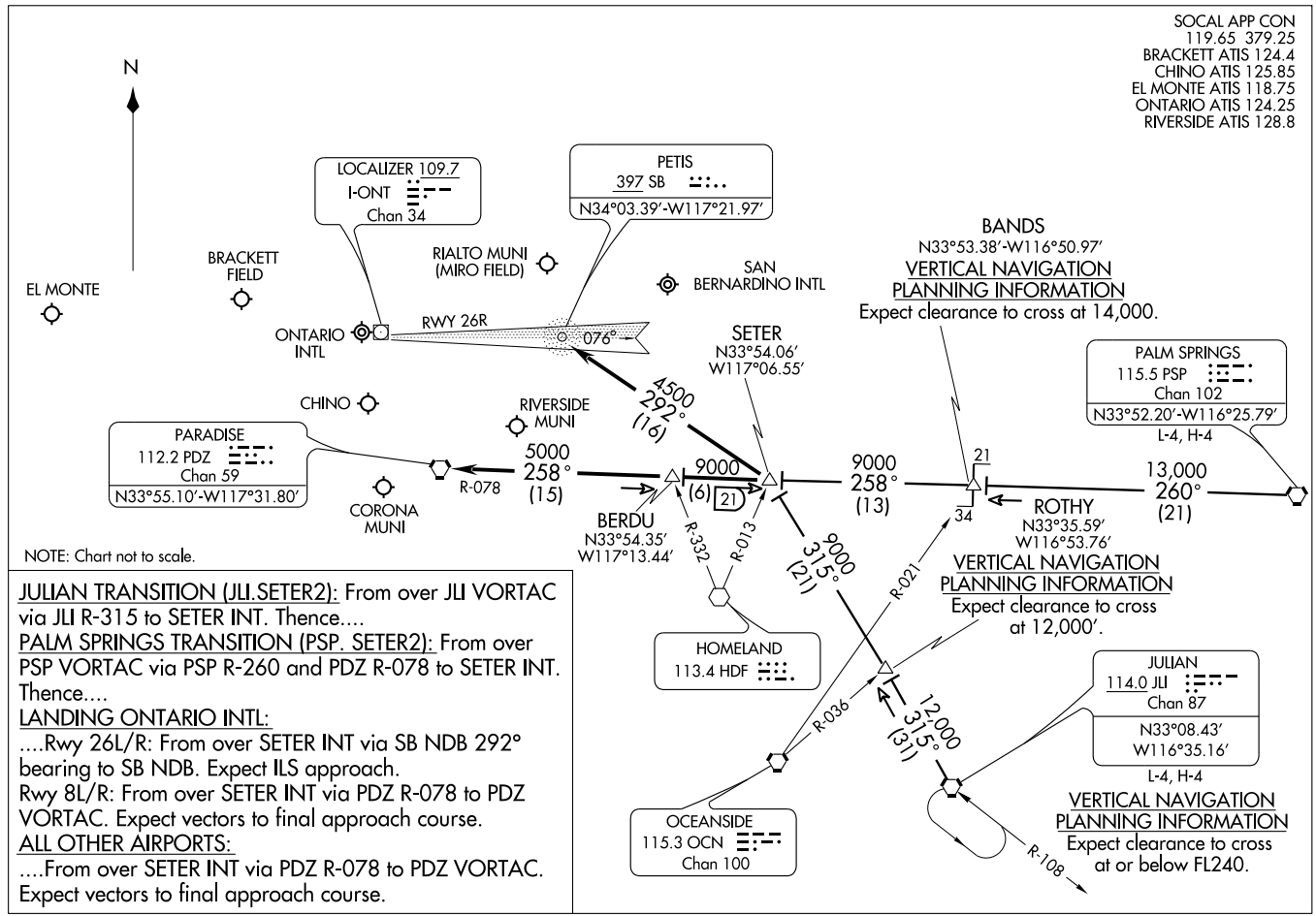




CATEGORY	A	B	C	D
LPV DA	1030-1¼ 394 (400-1¼)			
LNAV/VNAV DA	1117-2 541 (600-2)			
LNAV MDA	1260-1 624 (700-1)		1260-1¾ 624 (700-1¾)	1260-2 624 (700-2)
CIRCLING	1260-1¾ 608 (700-1¾)			1260-2 608 (700-2)

REIL Rwys 3 and 21
MIRL Rwys 3-21 and 8R-26L
HIRL Rwy 8L-26R

SW-3, 14 JAN 2010 to 11 FEB 2010



NOTE: Chart not to scale.

JULIAN TRANSITION (JLI.SETER2): From over JLI VORTAC via JLI R-315 to SETER INT. Thence....

PALM SPRINGS TRANSITION (PSP. SETER2): From over PSP VORTAC via PSP R-260 and PDZ R-078 to SETER INT. Thence....

LANDING ONTARIO INTL:

....Rwy 26L/R: From over SETER INT via SB NDB 292° bearing to SB NDB. Expect ILS approach.

Rwy 8L/R: From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ALL OTHER AIRPORTS:

....From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ST-965 (FAA)

ONTARIO, CALIFORNIA

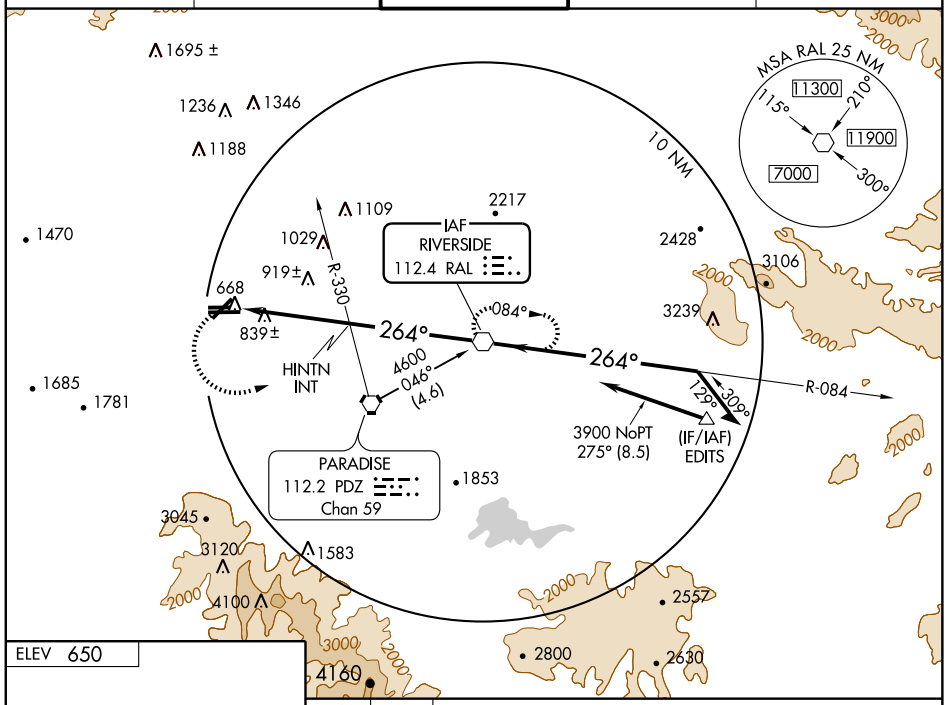
VOR RWY 26R
CHINO (CNO)

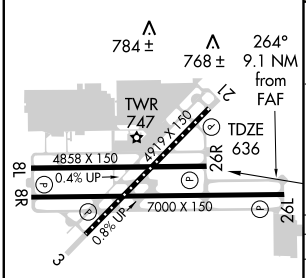
VOR RAL	APP CRS	Rwy Idg	4858
112.4	264°	TDZE	636
		Apt Elev	650

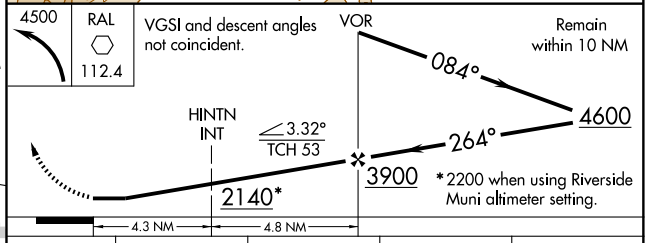
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Riverside Muni altimeter setting and increase all MDA 60 feet, increase HINTN FIX minimums S-26R and circling Cat B, C, and D visibility ¼ mile.

MISSED APPROACH: Climbing left turn to 4500 direct RAL VOR and hold, continue climb-in-hold to 4500.

ATIS	SOCAL APP CON	CHINO TOWER★	GND CON	UNICOM
125.85	135.4 377.125	118.5 (CTAF)	121.6	122.95







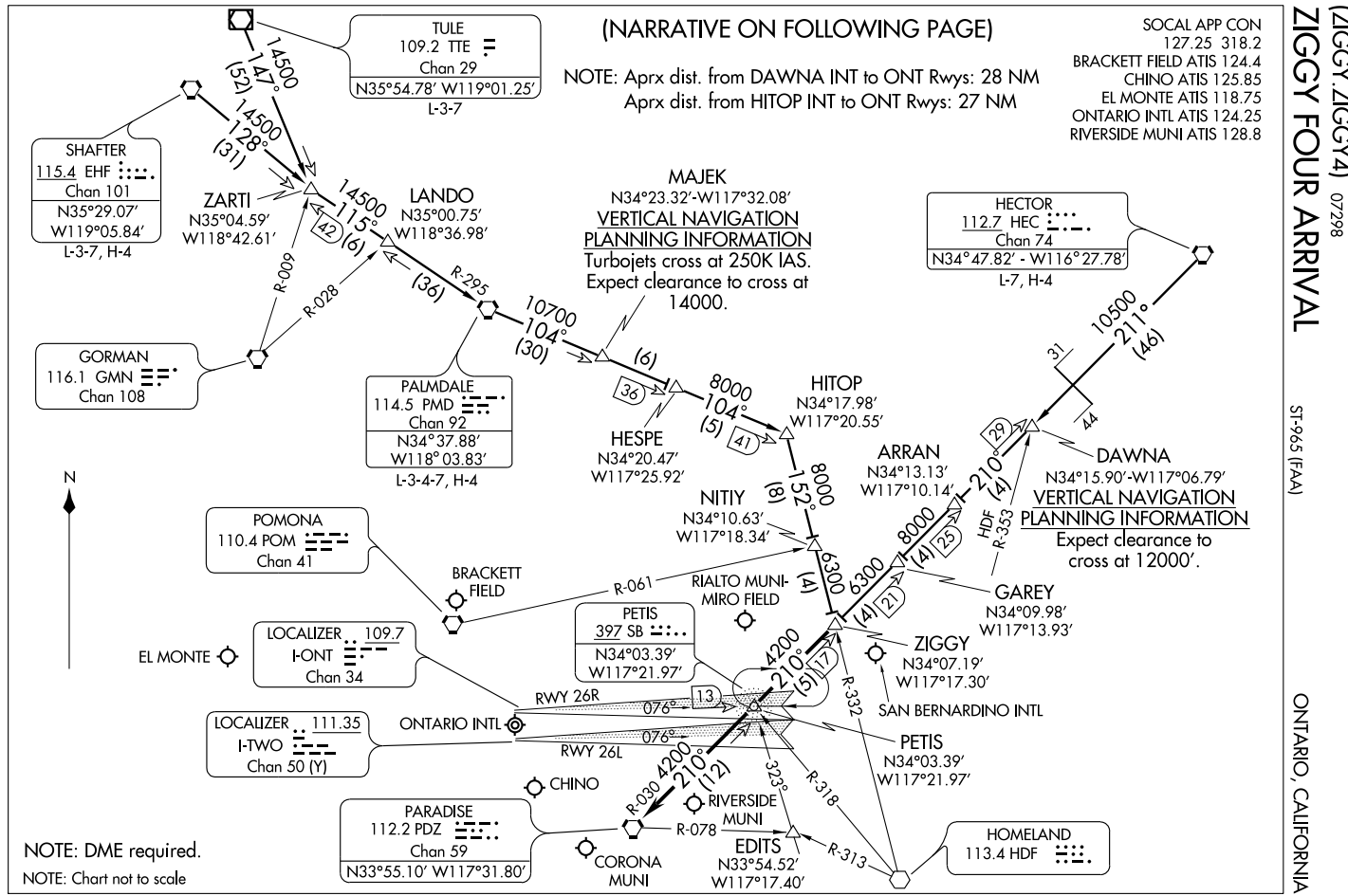
REIL Rwys 3 and 21
MIRL Rwys 3-21 and 8R-26L
HIRL Rwy 8L-26R

FAF to MAP 9.1 NM

Knots	60	90	120	150	180
Min:Sec	9:06	6:04	4:33	3:38	3:02

CATEGORY	A	B	C	D
S-26R	2140-1¼ 1504 (1500-1¼)	2140-1½ 1504 (1500-1½)	2140-3 1504 (1500-3)	
CIRCLING	2140-1¼ 1490 (1500-1¼)	2140-1½ 1490 (1500-1½)	2140-3 1490 (1500-3)	
HINTN FIX MINIMUMS				
S-26R	1320-1 684 (700-1)		1320-2 684 (700-2)	1320-2¼ 684 (700-2¼)
CIRCLING	1320-1 670 (700-1)		1320-2 670 (700-2)	1320-2¼ 670 (700-2¼)

SW-3, 14 JAN 2010 to 11 FEB 2010


(NARRATIVE ON FOLLOWING PAGE)
NOTE: Aprx dist. from DAWNA INT to ONT Rwys: 28 NM
Aprx dist. from HITOP INT to ONT Rwys: 27 NM
SOCAL APP CON
127.25 318.2
BRACKETT FIELD ATIS 124.4
CHINO ATIS 125.85
EL MONTE ATIS 118.75
ONTARIO INTL ATIS 124.25
RIVERSIDE MUNI ATIS 128.8
ZIGGY FOUR ARRIVAL
(ZIGGY.ZIGGY4) 07298
ST-965 (FAA)
ONTARIO, CALIFORNIA
TULE
109.2 TTE
Chan 29
N35°54.78' W119°01.25'
L-3-7
SHAFTER
115.4 EHF
Chan 101
N35°29.07'
W119°05.84'
L-3-7, H-4
ZARTI
N35°04.59'
W118°42.61'
LANDO
N35°00.75'
W118°36.98'
MAJEK
N34°23.32'-W117°32.08'
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojets cross at 250K IAS.
Expect clearance to cross at
14000.
HECTOR
112.7 HEC
Chan 74
N34°47.82' - W116°27.78'
L-7, H-4
GORMAN
116.1 GMN
Chan 108
PALMDALE
114.5 PMD
Chan 92
N34°37.88'
W118°03.83'
L-3-4-7, H-4
HESPE
N34°20.47'
W117°25.92'
HITOP
N34°17.98'
W117°20.55'
ARRAN
N34°13.13'
W117°10.14'
DAWNA
N34°15.90'-W117°06.79'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance to
cross at 12000'.
NITIY
N34°10.63'
W117°18.34'
POMONA
110.4 POM
Chan 41
BRACKETT
FIELD
RIALTO MUNI-
MIRO FIELD
GAREY
N34°09.98'
W117°13.93'
PETIS
397 SB
N34°03.39'
W117°21.97'
ZIGGY
N34°07.19'
W117°17.30'
EL MONTE
LOCALIZER 109.7
I-ONT
Chan 34
SAN BERNARDINO INTL
RWY 26R
RWY 26L
ONTARIO INTL
LOCALIZER 111.35
I-TWO
Chan 50 (Y)
PETIS
N34°03.39'
W117°21.97'
CHINO
PARADISE
112.2 PDZ
Chan 59
N33°55.10' W117°31.80'
RIVERSIDE
MUNI
CORONA
MUNI
EDITS
N33°54.52'
W117°17.40'
HOMELAND
113.4 HDF
NOTE: DME required.
NOTE: Chart not to scale
N

ZIGGY FOUR ARRIVAL

ARRIVAL ROUTE DESCRIPTION

HECTOR TRANSITION (HEC.ZIGGY4): From over HEC VORTAC via HEC R-211 and PDZ R-030 to ZIGGY INT. Thence . . . .

PALMDALE TRANSITION (PMD.ZIGGY4): From over PMD VORTAC via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

SHAFTER TRANSITION (EHF.ZIGGY4): From over EHF VORTAC via EHF R-128 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

TULE TRANSITION (TTE.ZIGGY4): From over TTE VOR/DME via TTE R-147 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

LANDING ONTARIO INTL:

. . . . RWY 8L/R: From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

. . . . RWY 26 L/R: From over ZIGGY INT via direct PETIS NDB or PDZ R-030 to PETIS INT; expect radar vectors for ILS approach.

ALL OTHER AIRPORTS:

. . . . From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

LOST COMMUNICATIONS: For Rialto, California, NDB-A approach, proceed from PDZ VORTAC via PDZ R-078 to EDITS INT, maintain 4200'.

SW-3, 14 JAN 2010 to 11 FEB 2010

CLOVERDALE, CALIFORNIA

AL-9503 (FAA)

RNAV (GPS) RWY 32

CLOVERDALE MUNI (O60)

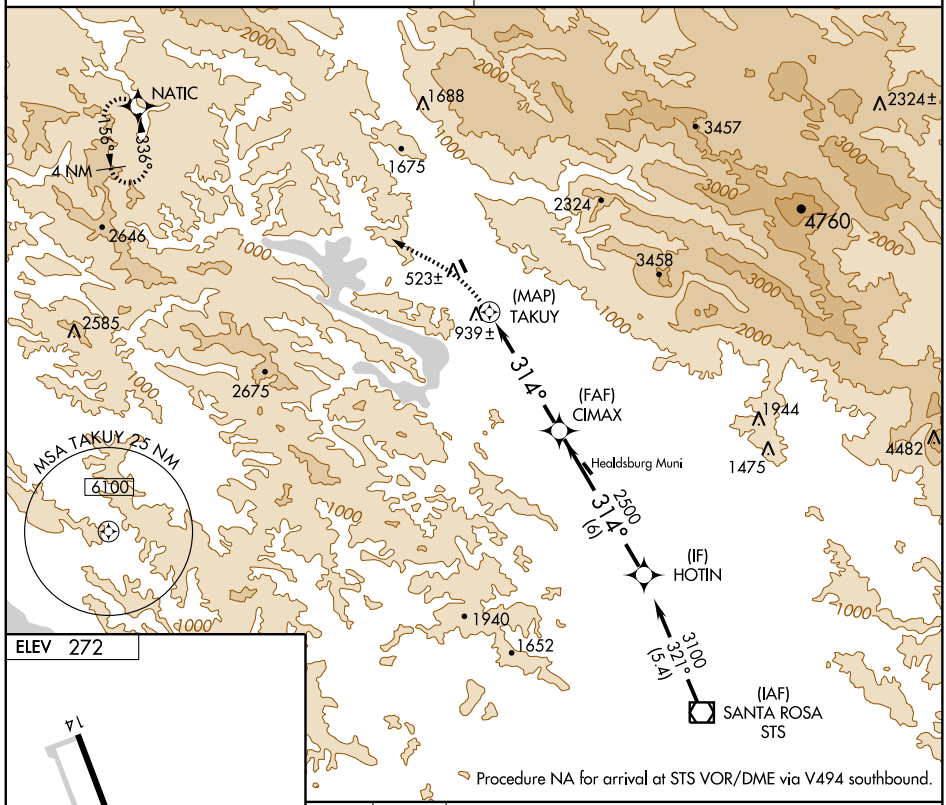
APP CRS	Rwy Idg	2645
314°	TDZE	271
	Apt Elev	272

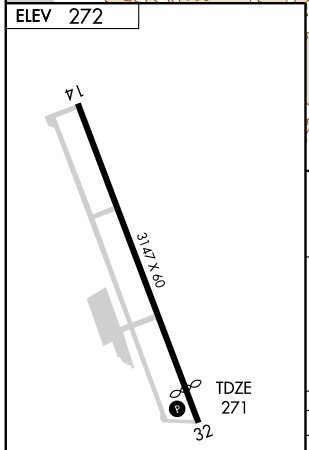
Use Santa Rosa/Charles M. Schulz-Sonoma Co. altimeter setting; when not received procedure NA.
Procedure NA at night. Circling NA east of Rwy 14-32
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

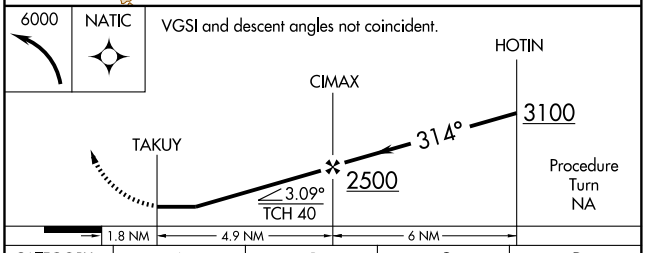
NA

MISSED APPROACH: Climbing left turn to 6000 direct NATIC WP and hold.

OAKLAND CENTER	UNICOM
127.8 353.5	122.8 (CTAF) L







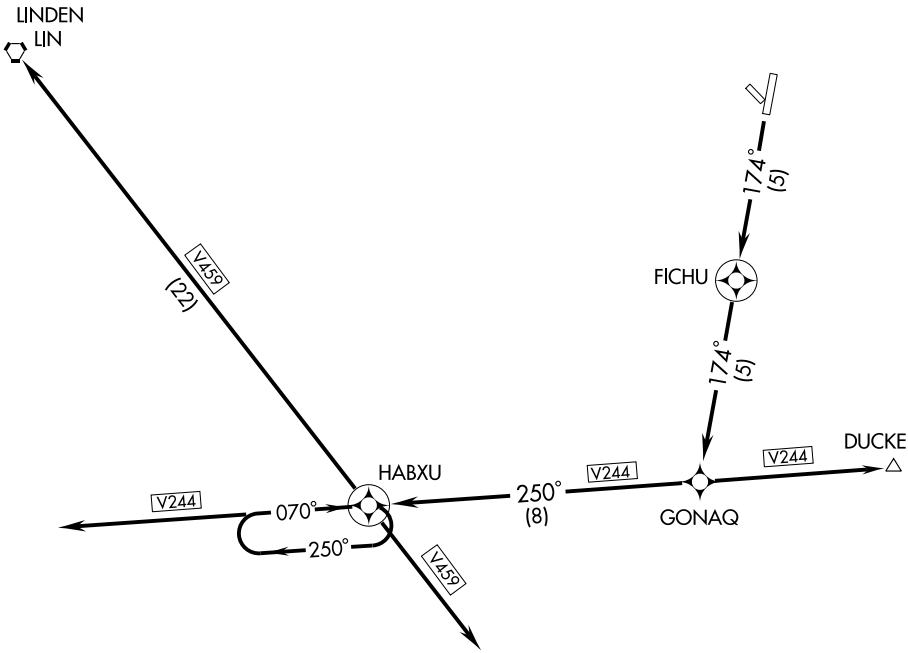
CATEGORY	A	B	C	D
LNAV MDA	1440-2	1169 (1200-2)	1440-3 1169 (1200-3)	NA
CIRCLING	1440-2	1168 (1200-2)	1640-3 1368 (1400-3)	NA

MIRL Rwy 14-32 L

SW-2, 14 JAN 2010 to 11 FEB 2010

FICHU ONE DEPARTURE (RNAV) (OBSTACLE)

NORCAL DEP CON
(N) 123.7 338.25
(W) 125.1 363.2
OAKLAND CENTER
(E) 126.85 322.55
RANCHO MURIETA RADIO
122.3



NOTE: Runway 17: 300-1 with a climb rate of 300' per NM to 3000'.

NOTE: 1. GPS Required.
2. RNAV 1

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 17: Climb to 4000 via 174° course to FICHU WP, 174° course to GONAQ WP, 250° course to HABXU WP; Aircraft V-459 southeast, northwest and V-244 westbound proceed on course; Aircraft departing V-244 eastbound climb in HABXU WP holding pattern to 8000, Then proceed on course.

TAKE-OFF RUNWAY 35: Not authorized.

SW-2, 14 JAN 2010 to 11 FEB 2010

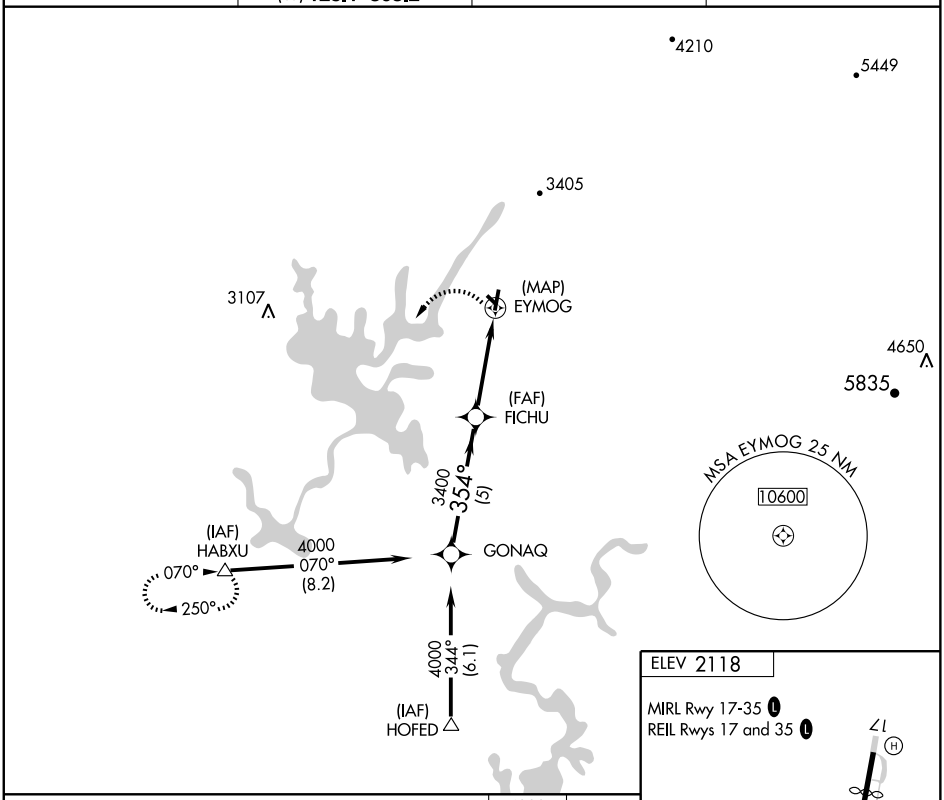
APP CRS		
354°	Rwy Idg	4286
	TDZE	2103
	Apt Elev	2118

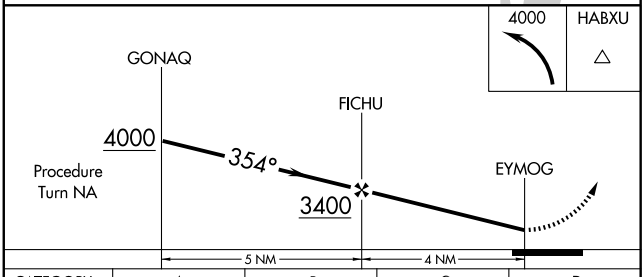
GPS RWY 35
COLUMBIA (O22)

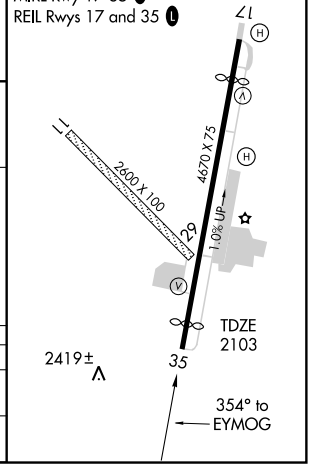
T
NA If local altimeter setting not received, procedure not authorized. Circling not authorized east of Rwy 17-35.

MISSED APPROACH: Climbing left turn to 4000 direct HABXU WP and hold.

AWOS-3	NORCAL APP CON	OAKLAND CENTER	UNICOM
124.65	(N) 123.7 338.25 (W) 125.1 363.2	(E) 126.85 322.55	122.975 (CTAF) L







CATEGORY	A	B	C	D
S-35	2800-1 697 (700-1)		2800-2 697 (700-2)	NA
CIRCLING	2800-1 682 (700-1)	2840-1 722 (800-1)	2840-2 722 (800-2)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

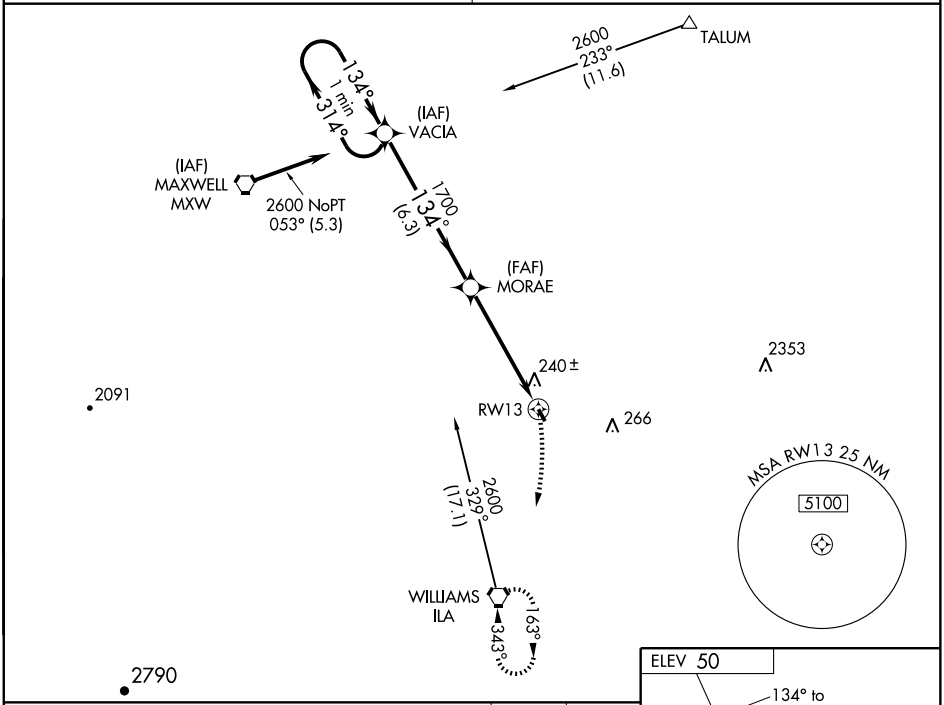
APP CRS	Rwy Idg	3035
134°	TDZE	50
	Apt Elev	50

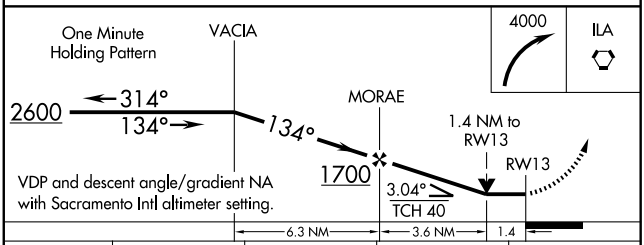
GPS RWY 13
COLUSA COUNTY (0Ø8)

T
NA — Obtain local altimeter setting on CTAF; when not received, use Sacramento Intl altimeter setting.

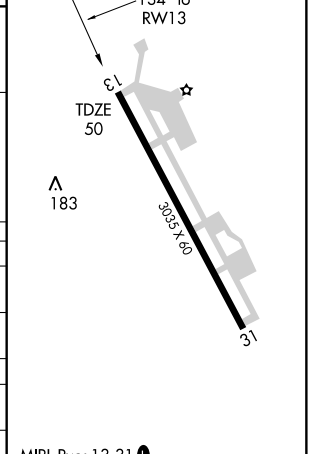
MISSED APPROACH: Climbing right turn to 4000 direct ILA VORTAC and hold.

OAKLAND CENTER	UNICOM
132.2 350.3	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-13	540-1	490 (500-1)	540-1¼ 490 (500-1¼)	NA
CIRCLING	600-1	550 (600-1)	600-1½ 550 (600-1½)	NA
SACRAMENTO ALTIMETER SETTING MINIMUMS				
S-13	640-1	590 (600-1)	640-1½ 590 (600-1½)	NA
CIRCLING	680-1	630 (700-1)	680-1¾ 630 (700-1¾)	NA



MIRL Rwy 13-31 L

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3035
314°	TDZE	50
	Apt Elev	50

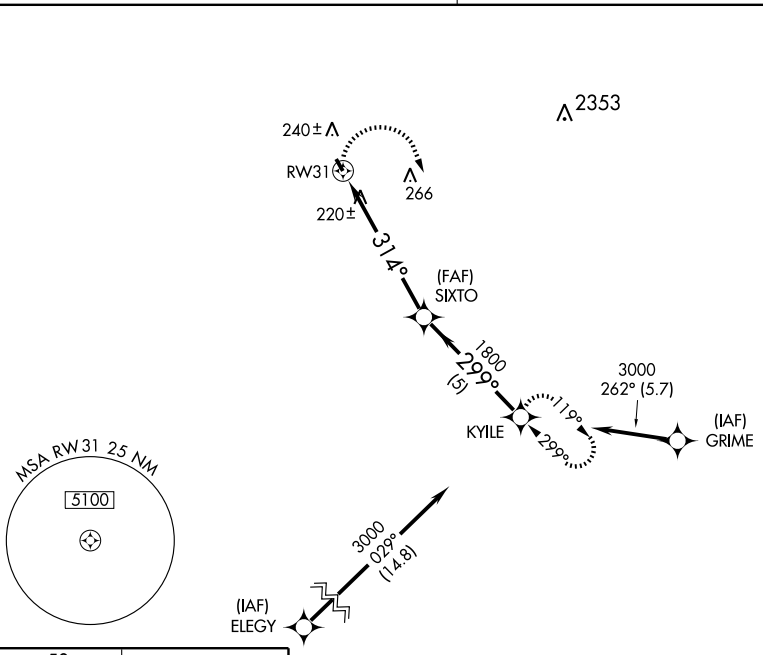
GPS RWY 31
COLUSA COUNTY (0Ø8)

T
A NA

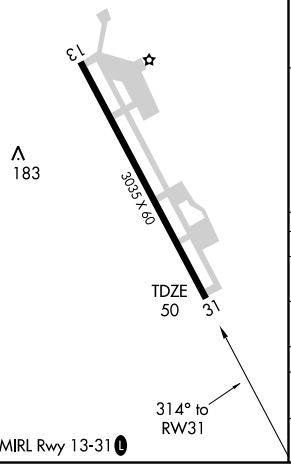
Obtain local altimeter setting on CTAF; when not received, use Sacramento Intl altimeter setting.

MISSED APPROACH: Climbing right turn to 4000 direct to KYILE WP and hold.

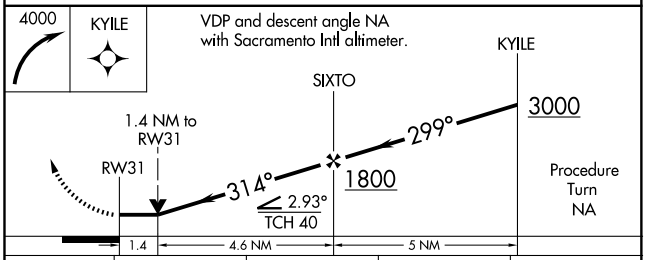
OAKLAND CENTER	UNICOM
132.2 350.3	**122.8** (CTAF) L



ELEV 50



MIRL Rwy 13-31 L



CATEGORY	A	B	C	D
S-31	520-1	470 (500-1)	520-1¼ 470 (500-1¼)	NA
CIRCLING	600-1	550 (600-1)	600-1½ 550 (600-1½)	NA
SACRAMENTO INTL ALTIMETER SETTING MINIMUMS				
S-31	620-1	580 (600-1)	620-1½ 580 (600-1½)	NA
CIRCLING	680-1	630 (700-1)	680-1¾ 630 (700-1¾)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC ILA	APP CRS	Rwy Idg	N/A
114.4	356°	TDZE	N/A
Chan 91		Apt Elev	50

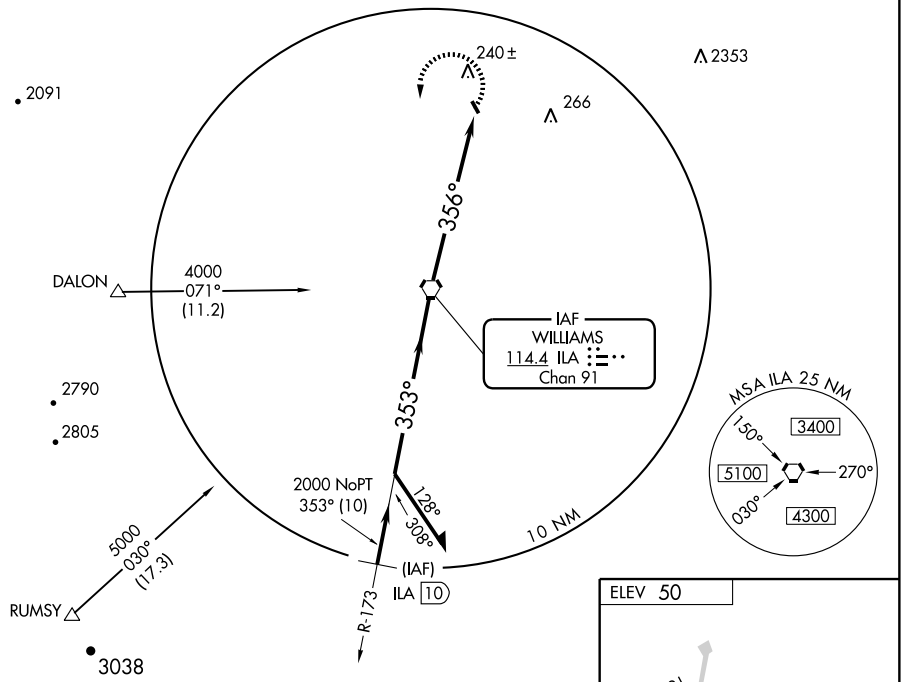
VOR-A
COLUSA COUNTY (Ø08)

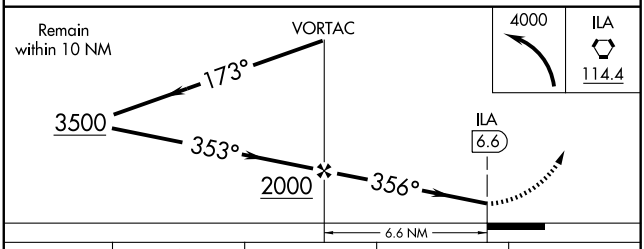
NA

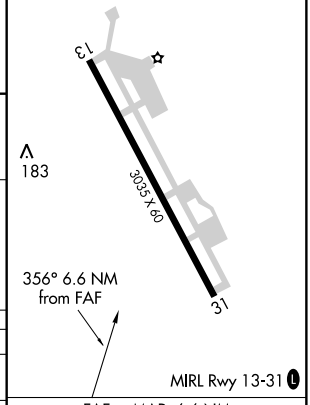
Obtain local altimeter setting on CTAF; when not received, use Sacramento Intl altimeter setting.

MISSED APPROACH: Climbing left turn to 4000 direct ILA VORTAC.

OAKLAND CENTER	UNICOM
132.2 350.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	600-1 550 (600-1)		NA	

SACRAMENTO INTL ALTIMETER SETTING MINIMUMS

CIRCLING	680-1 630 (700-1)		NA	

FAF to MAP 6.6 NM

Knots	60	90	120	150	180
Min:Sec	6:36	4:24	3:18	2:38	2:12

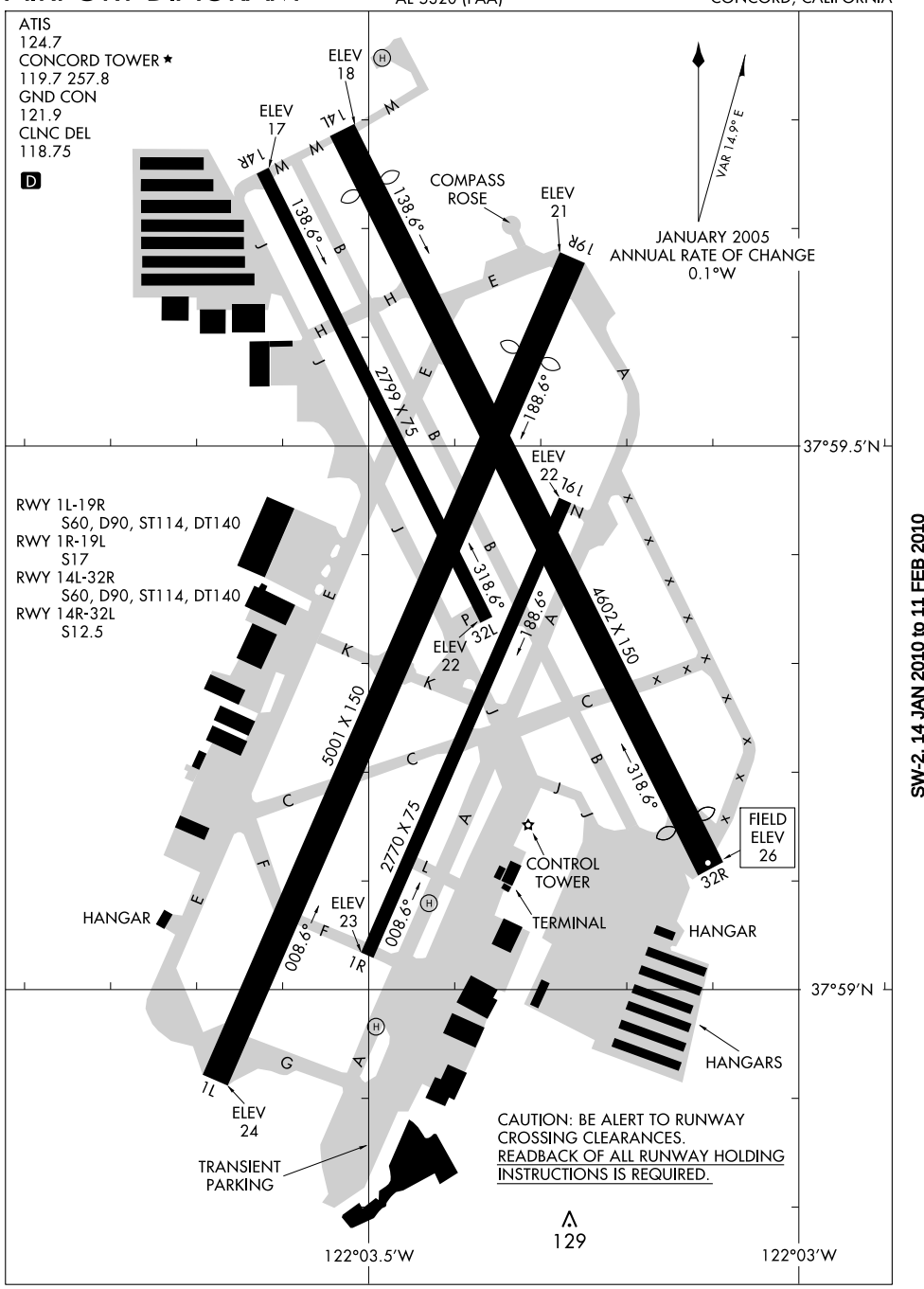
SW-2, 14 JAN 2010 to 11 FEB 2010

09351

AIRPORT DIAGRAM

AL-5320 (FAA)

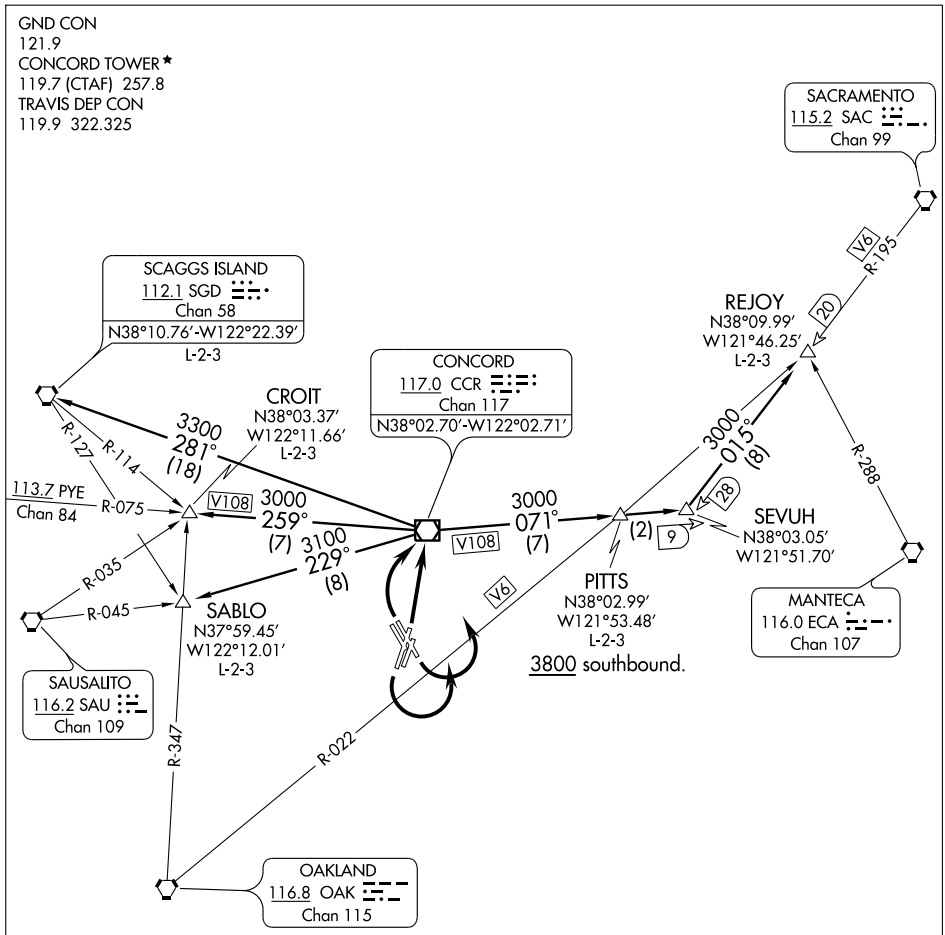
CONCORD/BUCHANAN FIELD (CCR)
CONCORD, CALIFORNIA



SW-2, 14 JAN 2010 to 11 FEB 2010

BUCHANAN NINE DEPARTURE

CONCORD/ BUCHANAN FIELD (CCR)
SL-5320 (FAA) CONCORD, CALIFORNIA



TAKE-OFF MINIMUMS

Rwys 1L, 14L, 19R, 32R: Standard with the following minimum climb requirements:
Rwy 1L: Obstacle climb of 360′ per NM to 1100 (3800 for PITTS Transition).
ATC climb of 360′ per NM to 3000.
Rwy 14L: Obstacle climb of 420′ per NM to 2700 (3800 for PITTS Transition).
ATC climb of 420′ per NM to 3000.
Rwy 19R: Obstacle climb of 490′ per NM to 4000.
Rwy 32R: Obstacle climb of 360′ per NM to 500 (3800 for PITTS Transition).
ATC climb of 320′ per NM to 3000.
Rwys 1R, 14R, 19L, 32L: NA-air traffic.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

SW-2, 14 JAN 2010 to 11 FEB 2010

BUCHANAN NINE DEPARTURE

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 1L: Climb direct CCR VOR/DME . Thence ....
TAKE-OFF RUNWAY 14L: Climbing left turn direct CCR VOR/DME. Thence ....
TAKE-OFF RUNWAY 19R: Climbing left turn direct CCR VOR/DME. Thence ....
TAKE-OFF RUNWAY 32R: Climbing right turn direct CCR VOR/DME. Thence ....

....via (transition) or (assigned route).

CROIT TRANSITION (BCHN9.CROIT): From over CCR VOR/DME via CCR R-259 to CROIT INT.

PITTS TRANSITION (BCHN9.PITTS): From over CCR VOR/DME via CCR R-071 to PITTS INT.

REJOY TRANSITION (BCHN9.REJOY): From over CCR VOR/DME via CCR R-071 and SAC R-195 to REJOY INT.

SABLO TRANSITION (BCHN9.SABLO): From over CCR VOR/DME via CCR R-229 to SABLO INT.

SCAGGS ISLAND TRANSITION (BCHN9.SGD): From over CCR VOR/DME via CCR R-281 to SGD VORTAC.

TAKE-OFF OBSTACLE NOTES

Rwy 1L: Multiple trees and bushes beginning 675' from DER, 9' left of centerline, up to 48' AGL/98' MSL.
Multiple poles, light poles and antennas on buildings beginning 639' from DER, 120' left of centerline, up to 50' AGL/72' MSL.
Fence 117' from DER, 2' right of centerline, 12' AGL/29' MSL.
Sign 1996' from DER, 812' left of centerline, 45' AGL/78' MSL.
Flagpole 1520' from DER, 753' left of centerline, 40' AGL/71' MSL.

Rwy 14L: Multiple trees beginning 841' from DER, 61' left of centerline, up to 78' AGL/102' MSL.
Building 1071' from DER, 35' left of centerline, 30' AGL/58' MSL.
Fence 225' from DER, 29' left of centerline, 12' AGL/33' MSL.

Rwy 19R: Multiple trees beginning 604' from DER, 82' left of centerline, up to 70' AGL/108' MSL.
Light pole 1392' from DER, 749' right of centerline, 51' AGL/71' MSL.
OL on building 2451' from DER, 911' left of centerline, 73' AGL/97' MSL.
Fence 123' from DER, 503' left of centerline, 6' AGL/30' MSL.

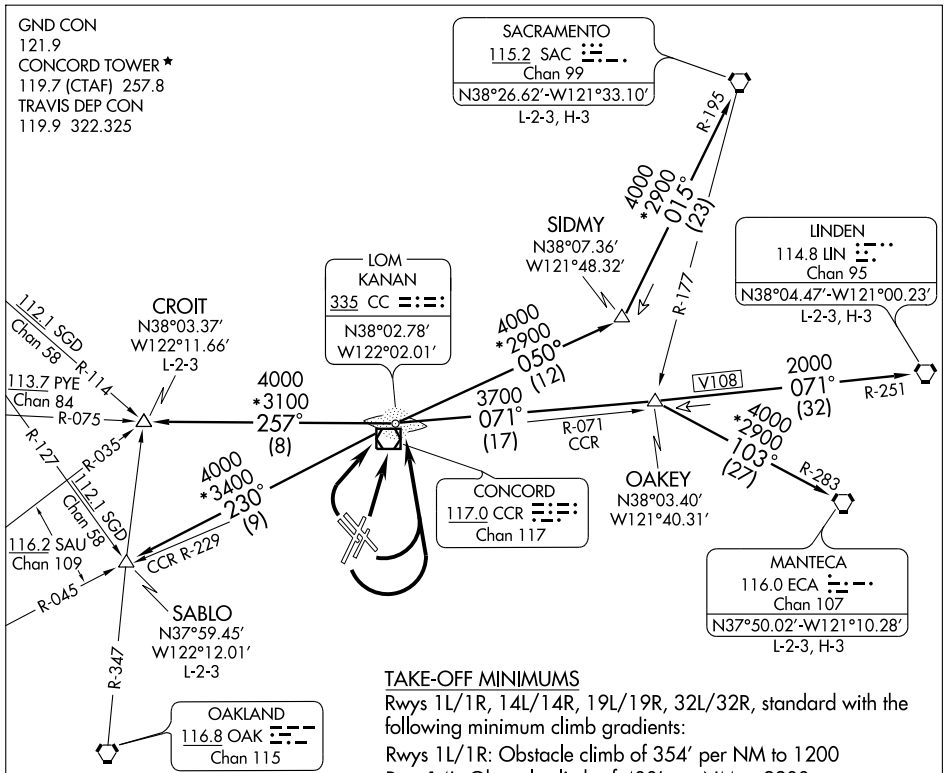
Rwy 32R: Train 1 NM from DER, 1948' left of centerline, 23' AGL/102' MSL.
OL on hopper 2110' from DER, 601' right of centerline, 79' AGL/99' MSL.
OL on tank 1.1 NM from DER, 1426' right of centerline, 193' AGL/213' MSL.
Flagpole 655' from DER, 300' right of centerline, 35' AGL/43' MSL.
Sign 697' from DER, 248' right of centerline, 25' AGL/41' MSL.
Road/vehicle 561' from DER, on centerline, 15' AGL/49' MSL.
Building 633' from DER, 246' left of centerline, 20' AGL/35' MSL.
Tree 825' from DER, 635' left of centerline, 25' AGL/40' MSL.
TRMSN tower 6015' from DER, 1839' left of centerline, 145' AGL/173' MSL.

SW-2, 14 JAN 2010 to 11 FEB 2010

KANAN TWO DEPARTURE

SL-5320 (FAA)

CONCORD/ BUCHANAN FIELD (CCR)
CONCORD, CALIFORNIA



TAKE-OFF MINIMUMS

Rwys 1L/1R, 14L/14R, 19L/19R, 32L/32R, standard with the following minimum climb gradients:

Rwys 1L/1R: Obstacle climb of 354′ per NM to 1200
Rwy 14L: Obstacle climb of 400′ per NM to 2200.
Rwy 14R: Obstacle climb of 380′ per NM to 2200.
Rwys 19L/19R: Obstacle climb of 470′ per NM to 3700.
Rwys 32L/32R: Obstacle climb of 360′ per NM to 1200.

TAKE-OFF OBSTACLE NOTES

Rwy 1L: Fence 117′ from DER, on centerline, 12′ AGL/29′ MSL.
Antenna on building 639′ from DER, 382′ right of centerline, 30′AGL/48′ MSL.
Multiple trees and bushes beginning 675′ from DER, 97′ left of centerline, up to 60′ AGL/83′ MSL.
Light pole 1362′ from DER, 390′ right of centerline, 40′ AGL/65′ MSL
Camera 2962′ from DER, 48′ right of centerline, 75′ AGL/96′ MSL.
Multiple trees and bushes beginning 1261′ from DER, 100′ right of centerline, up to 60′ AGL/78′ MSL.
Flagpole 1520′ from DER, 753′ left of centerline, 40′ AGL/71′ MSL.
Sign 1996′ from DER, 812′ left of centerline, 45′ AGL/78′ MSL.
Pole 1907′ from DER, 120′ left of centerline, 50′ AGL/72′ MSL.
Rwy 1R: Tree 1927′ from DER, 483′ right of centerline, 65′ AGL/131′ MSL.
Tree 1948′ from DER, 222′ right of centerline, 65′ AGL/104′ MSL.
Pole 1552′ from DER, 98′ right of centerline, 25′ AGL/67′ MSL.
Pole 1865′ from DER, 358′ right of centerline, 45′ AGL/96′ MSL.

(NOTES CONTINUED ON THE FOLLOWING PAGE)

NOTE: ADF Required

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

SW-2, 14 JAN 2010 to 11 FEB 2010

KANAN TWO DEPARTURE

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 1L/R: Climb direct CC LOM. Thence....

TAKE-OFF RUNWAYS 14L/R: Climbing left turn direct CC LOM. Thence....

TAKE-OFF RUNWAYS 19L/R: Climbing left turn direct CC LOM. Thence....

TAKE-OFF RUNWAYS 32L/R: Climbing right turn direct CC LOM. Thence....

....via (transition) or (assigned route).

CROIT TRANSITION (KANA2.CROIT): From over CC LOM via CC 257° bearing to CROIT INT.

LINDEN TRANSITION (KANA2.LIN): From over CC LOM via CC 071° bearing and LIN R-251 to LIN VORTAC.

MANTECA TRANSITION (KANA2.ECA): From over CC LOM via CC 071° bearing and ECA R-283 to ECA VORTAC.

SABLO TRANSITION (KANA2.SABLO): From over CC LOM via CC 230° bearing to SABLO INT.

SACRAMENTO TRANSITION (KANA2.SAC): From over CC LOM via CC 050° bearing and SAC R-195 to SAC VORTAC.

TAKE-OFF OBSTACLE NOTES (CONT)

Rwy 14L: Tree 1637' from DER, 328' right of centerline, 50' AGL/82' MSL.
Tree 1496' from DER, 474' right of centerline, 55' AGL/84' MSL.
Pole 1367' from DER, 275' right of centerline, 40' AGL/71' MSL.
Tree 1332' from DER, 61' left of centerline, 65' AGL/81' MSL.
Building 1071' from DER, 35' left of centerline, 30' AGL/58' MSL.
Building 5548' from DER, 1870' left of centerline, 110' AGL/176' MSL.
Obst light on building 5414' from DER, 100' left of centerline, 120' AGL/177' MSL.
Tree 942' from DER, 388' left of centerline, 50' AGL/102' MSL.
Tree 841' from DER, 177' left of centerline, 65' AGL/77' MSL.
Fence 225' from DER, 29' left of centerline, 12' AGL/33' MSL.

Rwy 14R: Obst light on airport beacon 1140' from DER, 315' right of centerline, 70' AGL/98' MSL.
Antenna 3254' from DER, 1096' right of centerline, 110' AGL/136' MSL.
Obst light on windsock 412' from DER, 451' right of centerline, 35' AGL/51' MSL.
Light 1281' from DER, 167' right of centerline, 45' AGL/69' MSL.
Tree 2745' from DER, 887' left of centerline, 65' AGL/102' MSL.
Building 3240' from DER, 1088' right of centerline, 55' AGL/129' MSL.

Rwy 19L: Tree 2257' from DER, 28' left of centerline, 70' AGL/97' MSL.
Tree 2132' from DER, 377' left of centerline, 70' AGL/90' MSL.
Tree 3112' from DER, 946' right of centerline, 70' AGL/106' MSL.
Tree 2544' from DER, 384' right of centerline, 60' AGL/87' MSL.

Rwy 19R: Fence 123' from DER, 503' left of centerline, 12' AGL/30' MSL.
Multiple trees beginning 604' from DER, 489' right of centerline, up to 70' AGL/106' MSL.
Light pole 1392' from DER, 749' right of centerline, 35' AGL/71' MSL.
Obst light 2451' from DER, 911' left of centerline, 77' AGL/97' MSL.
Multiple trees beginning 1276' from DER, 527' left of centerline, up to 70' AGL/108' MSL.

Rwy 32L: Multiple lighted stacks/towers beginning 6617' from DER, 1926' right of centerline, up to 250' AGL/378' MSL.
Hangar 259' from DER, 300' left of centerline, 25' AGL/37' MSL.
Transmission tower 6015' from DER, 1338' left of centerline, 145' AGL/173' MSL.
Road /vehicle 561' from DER, 504' right of centerline, 15' AGL/49' MSL.
Building 633' from DER, 254' right of centerline, 15' AGL/35' MSL.
Tree 825' from DER, 136' left of centerline, 25' AGL/40' MSL.

Rwy 32R: Multiple lighted stacks and buildings beginning 6617' from DER, 1426' right of centerline, up to 355' AGL/378' MSL.
Flagpole 665' from DER, 300' right of centerline, 35' AGL/43' MSL.
Building 633' from DER, 246' left of centerline, 20' AGL/35' MSL.
Tree 825' from DER, 635' left of centerline, 25' AGL/40' MSL.
Transmission tower 6015' from DER, 1839' left of centerline, 145' AGL/173' MSL.
Obst light on hopper 2110' from DER, 601' right of centerline, 79' AGL/99' MSL.
Sign 697' from DER, 248' right of centerline, 25' AGL/41' MSL.
Road/vehicle 561' from DER, on centerline, 15' AGL/49' MSL.

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC I-CCR	APP CRS	Rwy Idg	4410
108.5	181°	TDZE	20
		Apt Elev	23

LDA RWY 19R

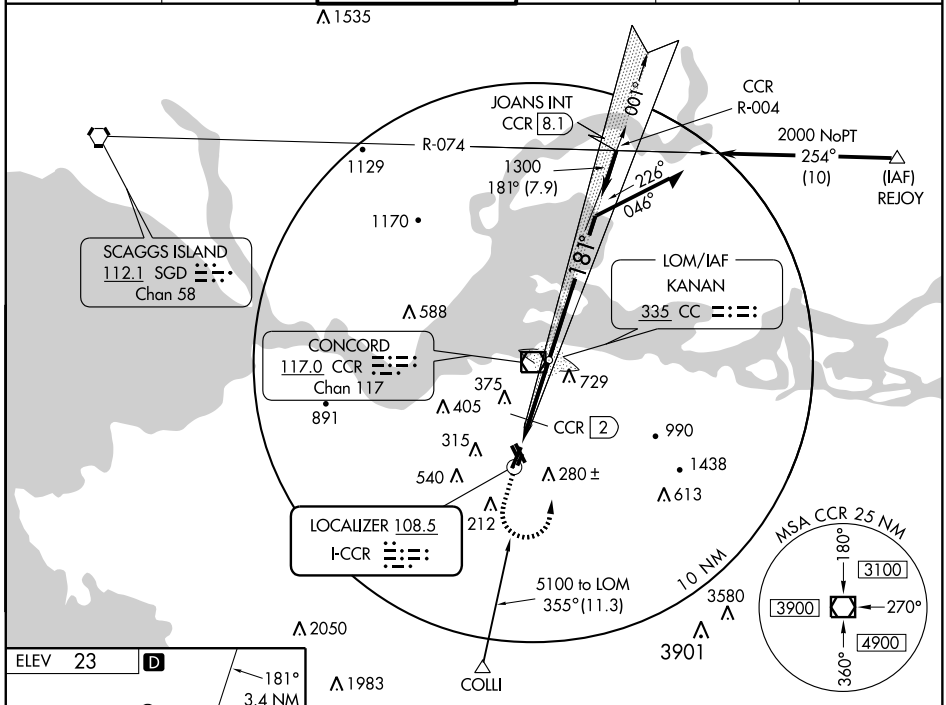
CONCORD/BUCHANAN FIELD (CCR)

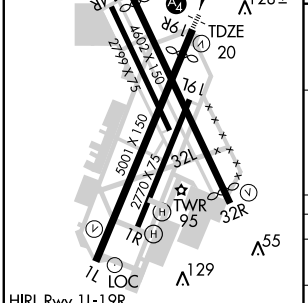
T A — Circling not authorized west of Rwy 1L-19R.
†Inoperative table does not apply to Cat C.

MALS

MISSED APPROACH: Climb to 900 then climbing left turn to 3500 direct CCR VOR/DME.

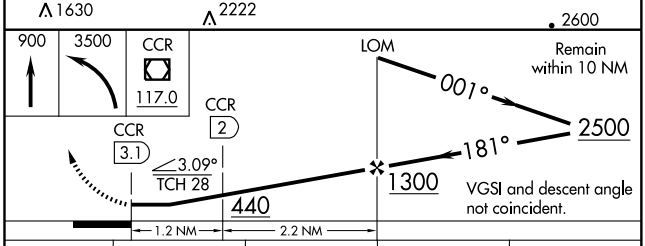
ATIS	TRAVIS APP CON	CONCORD TOWER★	GND CON	CLNC DEL	UNICOM
124.7	119.9 322.325	119.7 (CTAF) L 257.8	121.9	118.75	122.95





HIRL Rwy 1L-19R
REIL Rwys 1L and 32R
MIRL Rwy 14L-32R

FAF to MAP 3.4 NM					
Knots	60	90	120	150	180
Min:Sec	3:24	2:16	1:42	1:22	1:08



CATEGORY	A	B	C	D
S-19R†	440-¾ 420 (500-¾)		440-1¼ 420 (500-1¼)	NA
CIRCLING	580-1 557 (600-1)	680-1 657 (700-1)	680-1¾ 657 (700-1¾)	NA
DME MINIMUMS				
S-19R	380-¾ 360 (400-¾)			NA
CIRCLING	580-1 557 (600-1)	680-1 657 (700-1)	680-1¾ 657 (700-1¾)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	4410
187°	TDZE	23
	Apt Elev	26

RNAV (GPS) RWY 19R

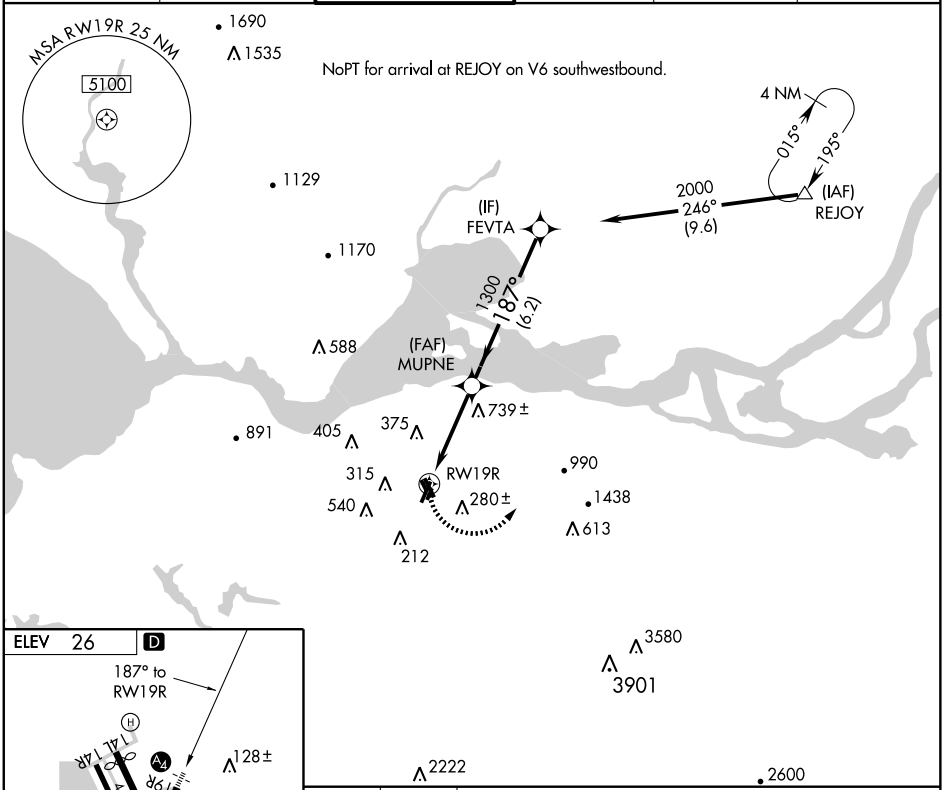
CONCORD/ BUCHANAN FIELD (CCR)

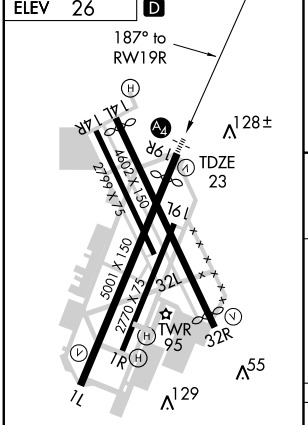
Circling NA west of Rwy 1L-19R.
When VGSI inoperative, circling Rwy 1L and 32R NA at night.
DME/DME RNP-0.3 NA.
Inoperative table does not apply.

MALS

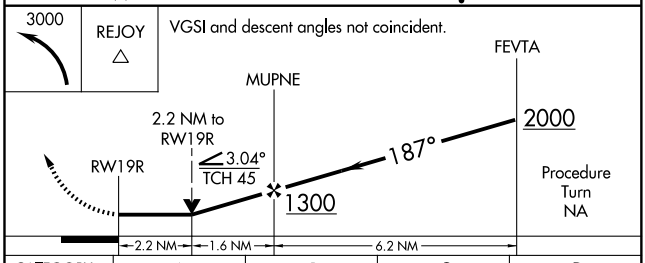
MISSED APPROACH: Climbing left turn to 3000 direct REJOY and hold.

ATIS	TRAVIS APP CON	CONCORD TOWER★	GND CON	CLNC DEL	UNICOM
124.7	119.9 322.325	119.7 (CTAF) 257.8	121.9	118.75	122.95





HIRL Rwy 1L-19R
REIL Rwys 1L and 32R
MIRL Rwy 14L-32R



CATEGORY	A	B	C	D
LNAV MDA	1000-1¼ 977 (1000-1¼)	1000-1½ 977 (1000-1½)	1000-3 977 (1000-3)	
CIRCLING	1000-1¼ 974 (1000-1¼)	1000-1½ 974 (1000-1½)	1000-3 974 (1000-3)	

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME CCR	APP CRS	Rwy Idg	4410
117.0	171°	TDZE	20
Chan 117		Apt Elev	23

VOR RWY 19R

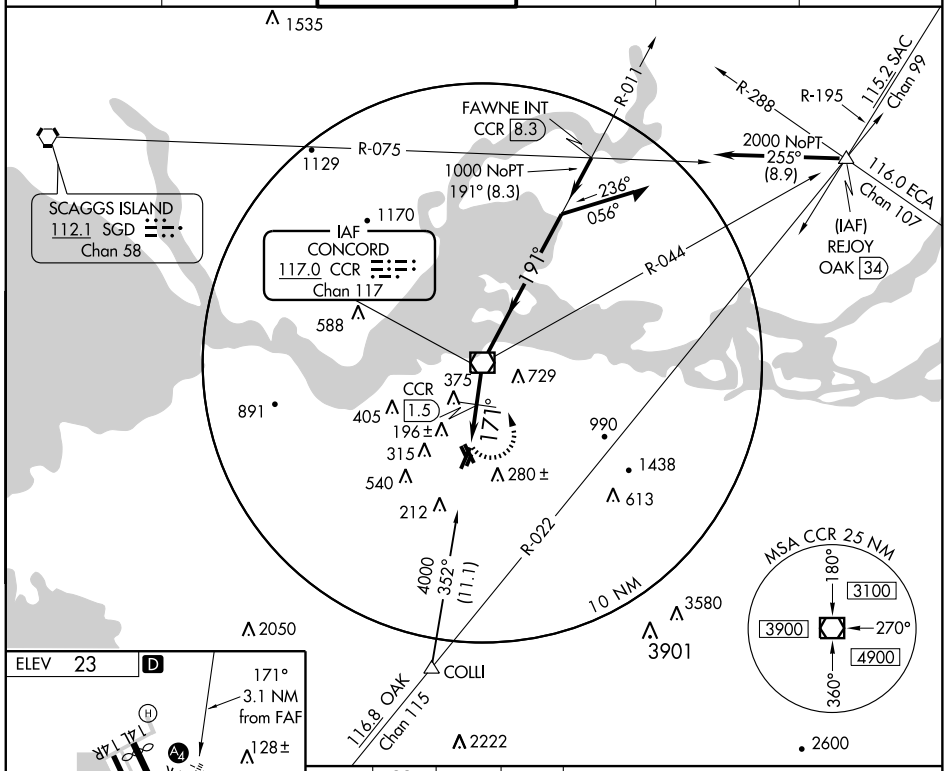
CONCORD/BUCHANAN FIELD (CCR)

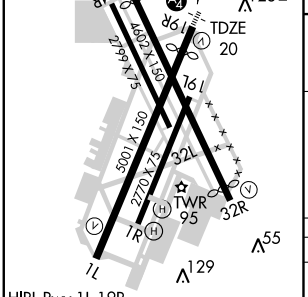
Circling NA west of Rwys 1L and 14R.
Inoperative table does not apply to Cat C.

MALS

MISSED APPROACH: Climbing left turn to 2500 direct CCR VOR/DME then via CCR R-044 to REJOY Int.

ATIS	TRAVIS APP CON	CONCORD TOWER★	GND CON	CLNC DEL	UNICOM
124.7	119.9 322.325	119.7 (CTAF) L 257.8	121.9	118.75	122.95

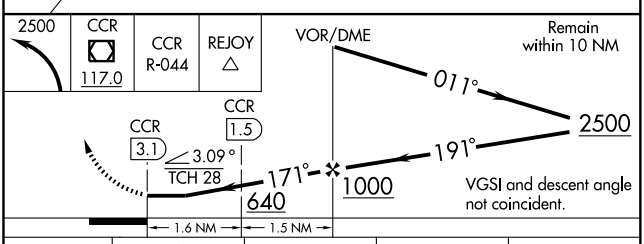




HIRL Rwy 1L-19R
REIL Rwy 1L and 32R
MIRL Rwy 14L-32R

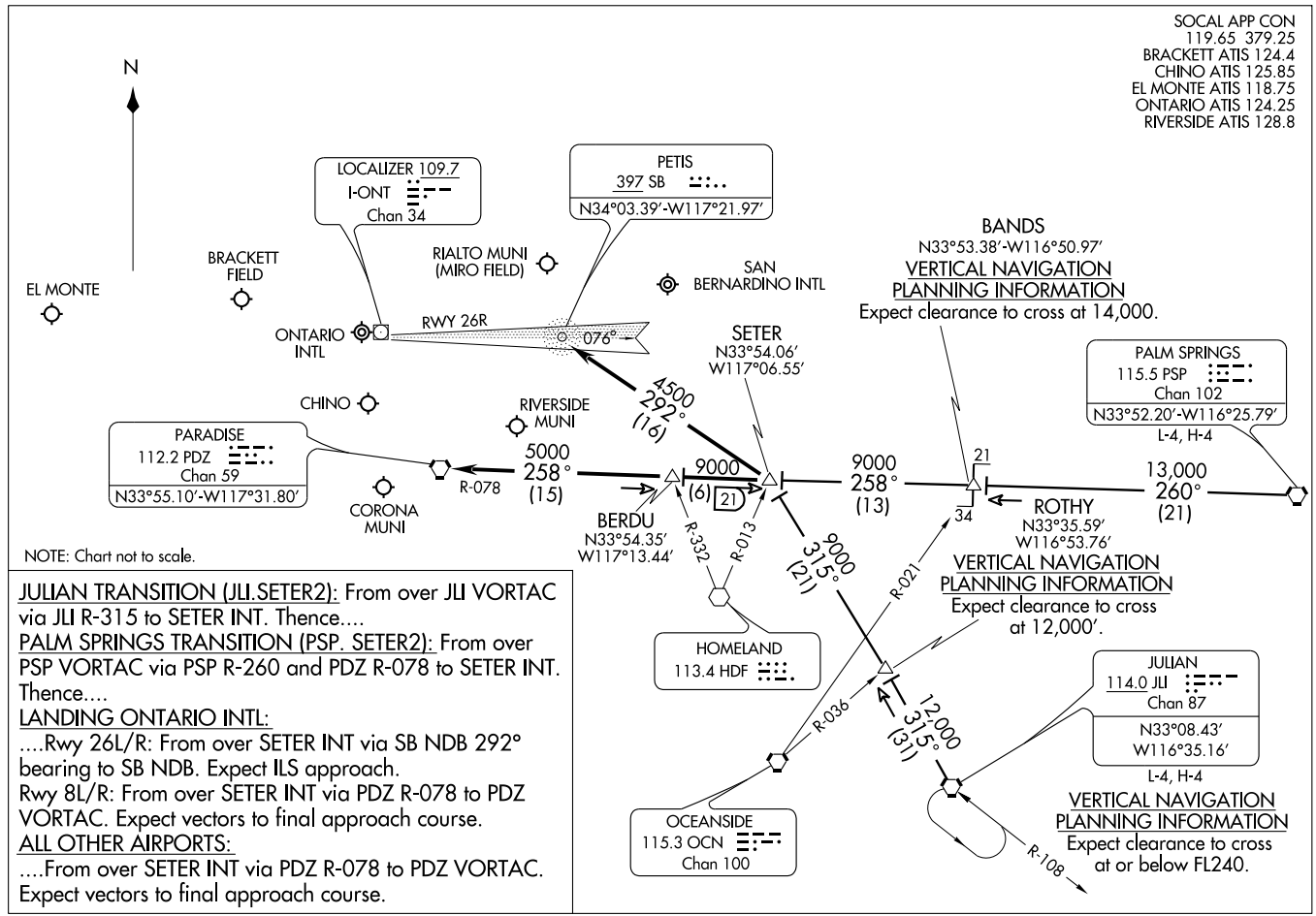
FAF to MAP 3.1 NM

Knots	60	90	120	150	180
Min:Sec	3:06	2:04	1:33	1:14	1:02



CATEGORY	A	B	C	D
S-19R	640-¾ 620 (700-¾)		640-1¾ 620 (700-1¾)	NA
CIRCLING	640-1 617 (700-1)	680-1 657 (700-1)	680-1¾ 657 (700-1¾)	NA
DME MINIMUMS				
S-19R	460-¾ 440 (500-¾)		460-1¼ 440 (500-1¼)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010



NOTE: Chart not to scale.

JULIAN TRANSITION (JLI.SETER2): From over JLI VORTAC via JLI R-315 to SETER INT. Thence....

PALM SPRINGS TRANSITION (PSP. SETER2): From over PSP VORTAC via PSP R-260 and PDZ R-078 to SETER INT. Thence....

LANDING ONTARIO INTL:

....Rwy 26L/R: From over SETER INT via SB NDB 292° bearing to SB NDB. Expect ILS approach.

Rwy 8L/R: From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ALL OTHER AIRPORTS:

....From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ST-965 (FAA)

ONTARIO, CALIFORNIA

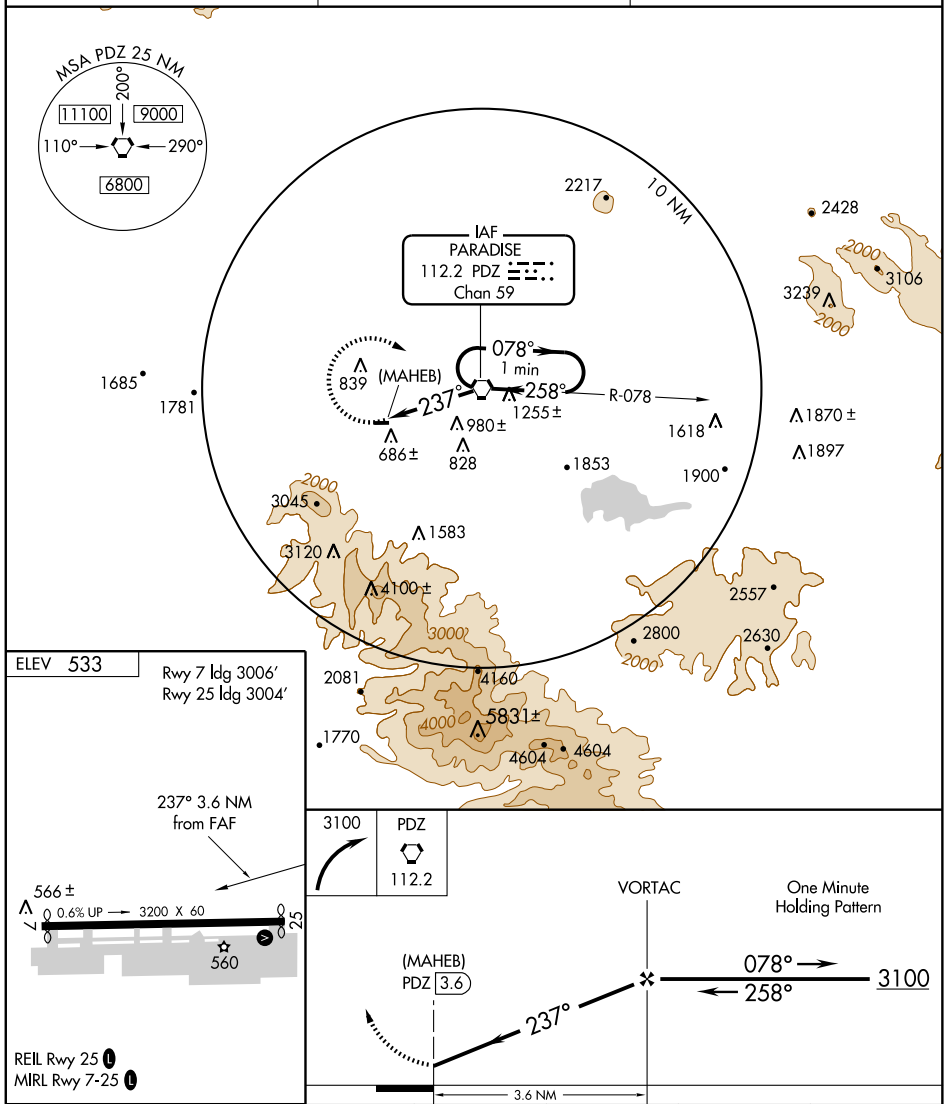
VORTAC PDZ	APP CRS	Rwy Idg	N/A
112.2	237°	TDZE	N/A
Chan 59		Apt Elev	533

VOR or GPS-A
CORONA MUNI (AJO)

T NA When local altimeter setting not received, use Ontario Intl altimeter setting and increase all MDA 80 feet.

MISSED APPROACH: Climbing right turn to 3100 direct PDZ VORTAC and hold, continue climb in hold to 3100.

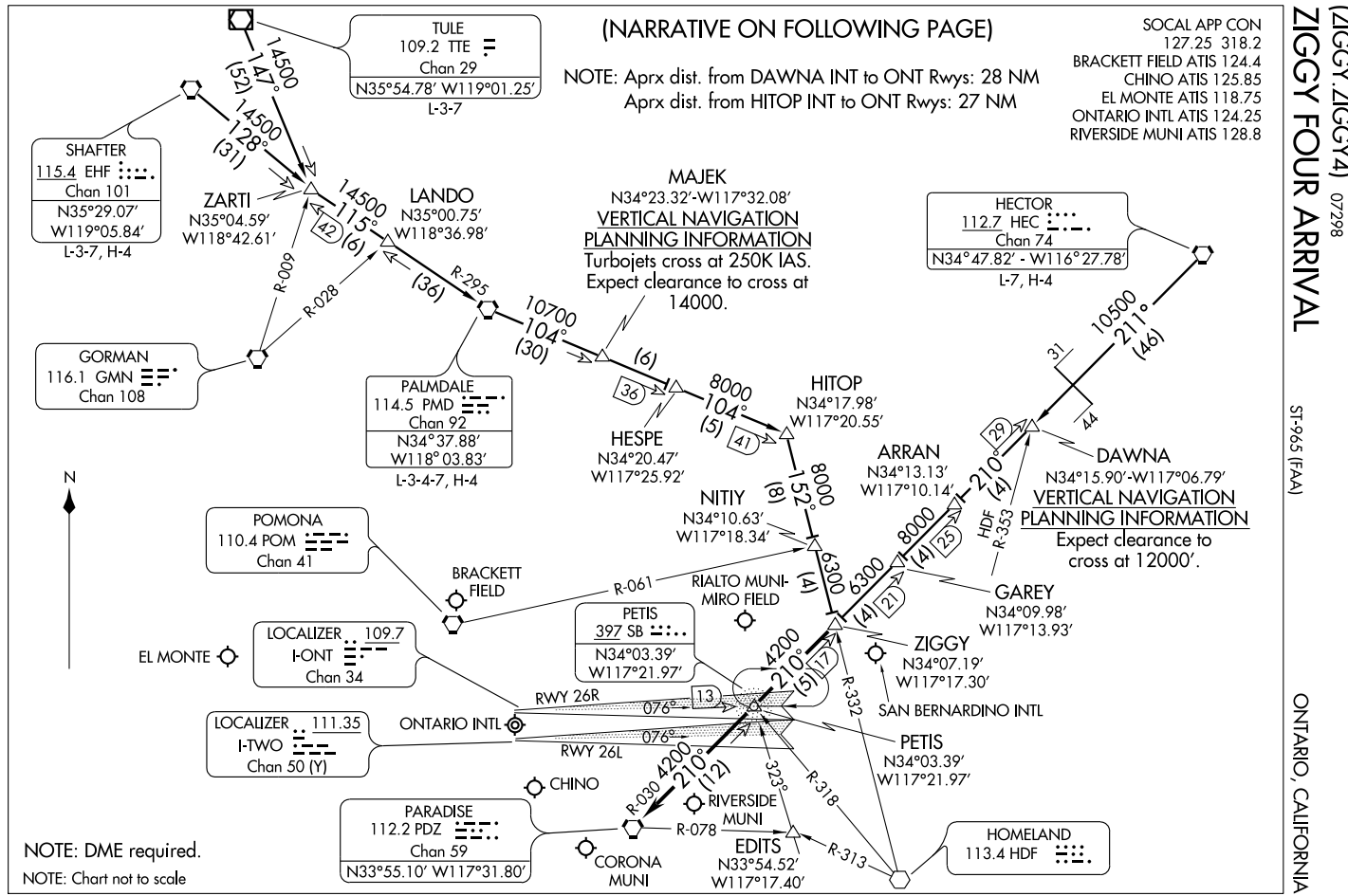
ASOS	SOCAL APP CON	UNICOM
132.175	135.4 377.125	122.7 (CTAF) L



FAF to MAP 3.6 NM					
Knots	60	90	120	150	180
Min:Sec	3:36	2:24	1:48	1:26	1:12

CATEGORY	A	B	C	D
CIRCLING	1660-1¼ 1127 (1200-1¼)	1660-1½ 1127 (1200-1½)	NA	

SW-3, 14 JAN 2010 to 11 FEB 2010


(NARRATIVE ON FOLLOWING PAGE)
NOTE: Aprx dist. from DAWNA INT to ONT Rwys: 28 NM
Aprx dist. from HITOP INT to ONT Rwys: 27 NM
SOCAL APP CON
127.25 318.2
BRACKETT FIELD ATIS 124.4
CHINO ATIS 125.85
EL MONTE ATIS 118.75
ONTARIO INTL ATIS 124.25
RIVERSIDE MUNI ATIS 128.8
ZIGGY FOUR ARRIVAL
(ZIGGY.ZIGGY4) 07298
ST-965 (FAA)
ONTARIO, CALIFORNIA
TULE
109.2 TTE
Chan 29
N35°54.78' W119°01.25'
L-3-7
SHAFTER
115.4 EHF
Chan 101
N35°29.07'
W119°05.84'
L-3-7, H-4
ZARTI
N35°04.59'
W118°42.61'
LANDO
N35°00.75'
W118°36.98'
MAJEK
N34°23.32'-W117°32.08'
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojets cross at 250K IAS.
Expect clearance to cross at
14000.
HECTOR
112.7 HEC
Chan 74
N34°47.82' - W116°27.78'
L-7, H-4
GORMAN
116.1 GMN
Chan 108
PALMDALE
114.5 PMD
Chan 92
N34°37.88'
W118°03.83'
L-3-4-7, H-4
HESPE
N34°20.47'
W117°25.92'
HITOP
N34°17.98'
W117°20.55'
ARRAN
N34°13.13'
W117°10.14'
DAWNA
N34°15.90'-W117°06.79'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance to
cross at 12000'.
NITIY
N34°10.63'
W117°18.34'
POMONA
110.4 POM
Chan 41
BRACKETT
FIELD
RIALTO MUNI-
MIRO FIELD
GAREY
N34°09.98'
W117°13.93'
PETIS
397 SB
N34°03.39'
W117°21.97'
ZIGGY
N34°07.19'
W117°17.30'
EL MONTE
LOCALIZER 109.7
I-ONT
Chan 34
SAN BERNARDINO INTL
RWY 26R
RWY 26L
ONTARIO INTL
LOCALIZER 111.35
I-TWO
Chan 50 (Y)
PETIS
N34°03.39'
W117°21.97'
CHINO
PARADISE
112.2 PDZ
Chan 59
N33°55.10' W117°31.80'
RIVERSIDE
MUNI
CORONA
MUNI
EDITS
N33°54.52'
W117°17.40'
HOMELAND
113.4 HDF
NOTE: DME required.
NOTE: Chart not to scale
N

ZIGGY FOUR ARRIVAL

ARRIVAL ROUTE DESCRIPTION

HECTOR TRANSITION (HEC.ZIGGY4): From over HEC VORTAC via HEC R-211 and PDZ R-030 to ZIGGY INT. Thence . . . .

PALMDALE TRANSITION (PMD.ZIGGY4): From over PMD VORTAC via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

SHAFTER TRANSITION (EHF.ZIGGY4): From over EHF VORTAC via EHF R-128 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

TULE TRANSITION (TTE.ZIGGY4): From over TTE VOR/DME via TTE R-147 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

LANDING ONTARIO INTL:

. . . . RWY 8L/R: From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

. . . . RWY 26 L/R: From over ZIGGY INT via direct PETIS NDB or PDZ R-030 to PETIS INT; expect radar vectors for ILS approach.

ALL OTHER AIRPORTS:

. . . . From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

LOST COMMUNICATIONS: For Rialto, California, NDB-A approach, proceed from PDZ VORTAC via PDZ R-078 to EDITS INT, maintain 4200'.

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	5002
354°	TDZE	56
	Apt Elev	57

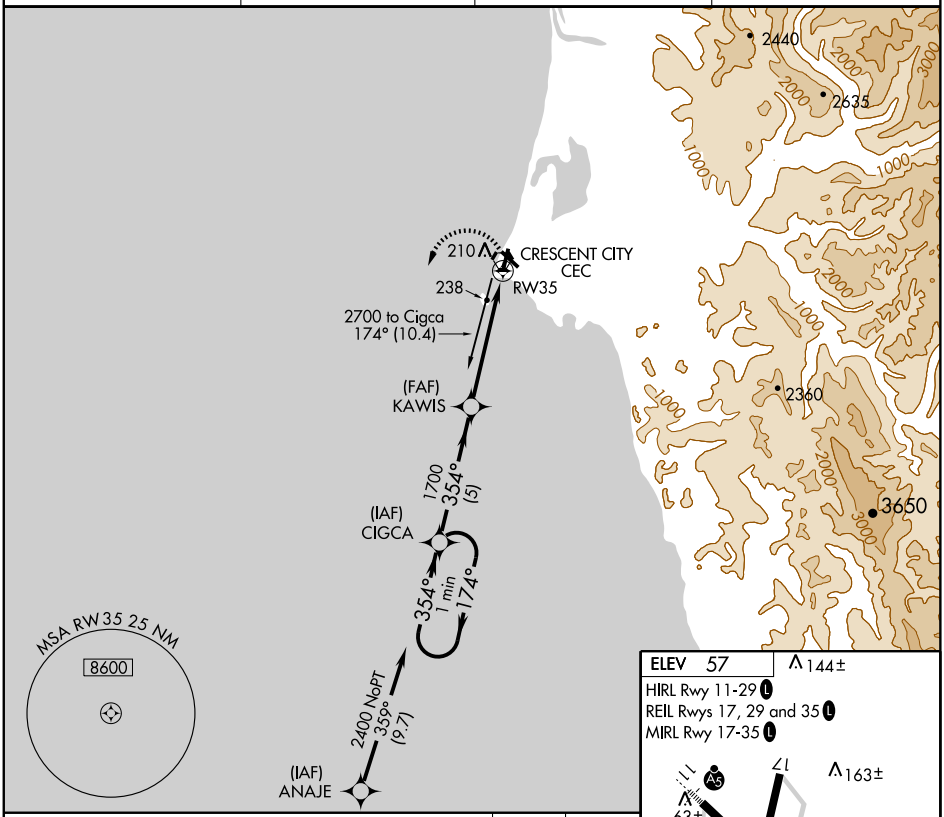
GPS RWY 35

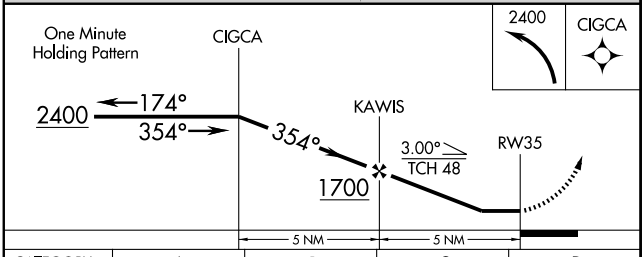
CRESCENT CITY/ JACK MC NAMARA FIELD (CEC)

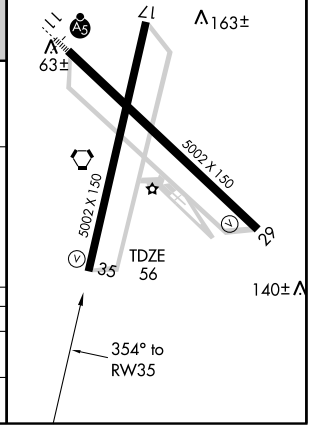
T
ANA

MISSED APPROACH: Climbing left turn to 2400 direct CIGCA WP and hold.

ASOS	SEATTLE CENTER	OAKLAND RADIO	UNICOM
119.925	124.85 306.3	122.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-35	500-1	444 (500-1)	500-1¼ 444 (500-1¼)	500-1½ 444 (500-1½)
CIRCLING	540-1	483 (500-1)	540-1½ 483 (500-1½)	640-2 583 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC I-CEC	APP CRS	Rwy Idg	5002
108.7	114°	TDZE	57
		Apt Elev	57

ILS/DME RWY 11

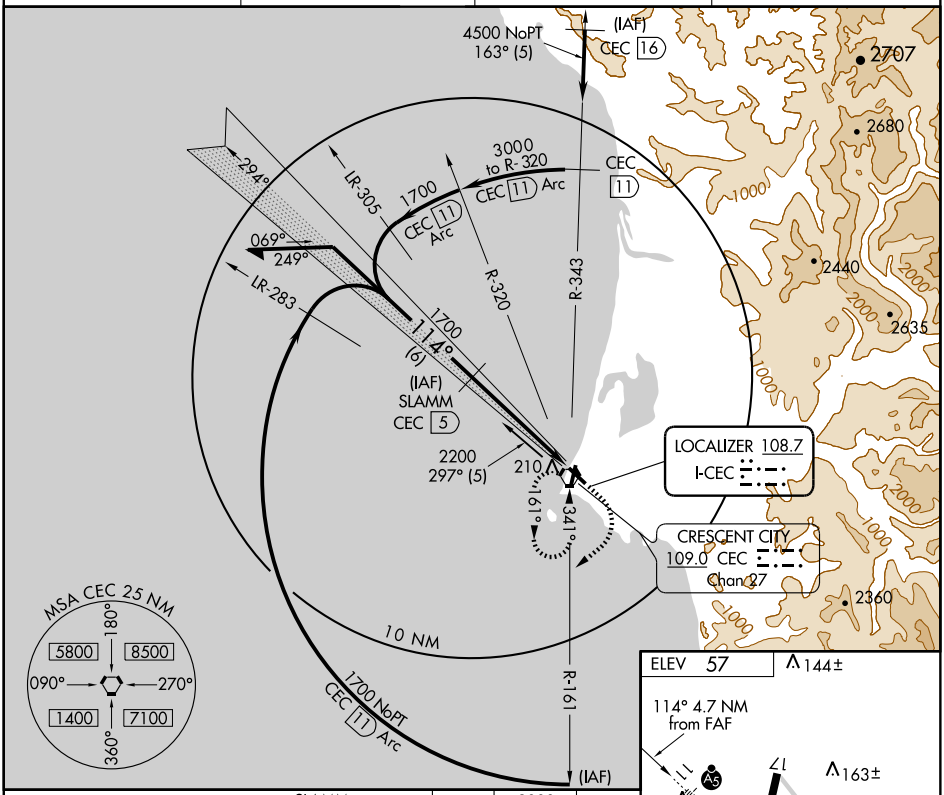
CRESCENT CITY/ JACK MC NAMARA FIELD (CEC)

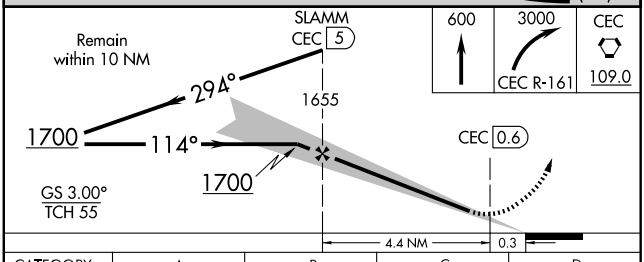
DME from CEC VORTAC. Simultaneous reception of I-CEC and CEC DME required. Inoperative table does not apply to S-LOC 11 Cat D.

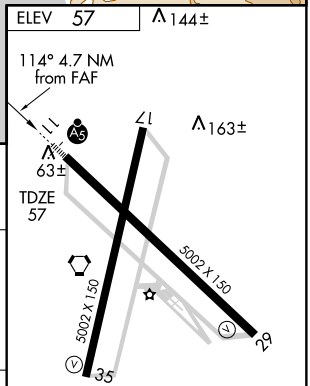
MALSR

MISSED APPROACH: Climb to 600 then climbing right turn to 3000 via CEC R-161, then direct CEC VORTAC and hold.

ASOS	SEATTLE CENTER	OAKLAND RADIO	UNICOM
119.925	124.85 306.3	122.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-ILS 11	257-½ 200 (200-½)			
S-LOC 11	320-½ 263 (300-½)			320-1 263 (300-1)
CIRCLING	540-1 483 (500-1)		540-1½ 483 (500-1½)	640-2 583 (600-2)

HIRL Rwy 11-29 L
REIL Rwys 17, 29 and 35 L
MIRL Rwy 17-35 L

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 90310 W11A	APP CRS 114°	Rwy Idg 5002 TDZE 57 Apt Elev 57

RNAV (GPS) RWY 11

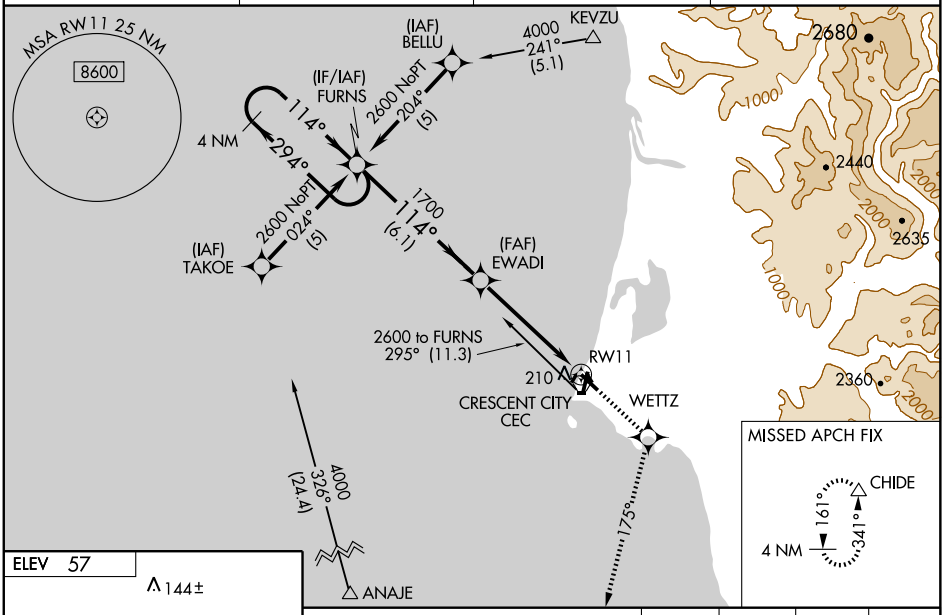
CRESCENT CITY/ JACK MC NAMARA FIELD (CEC)

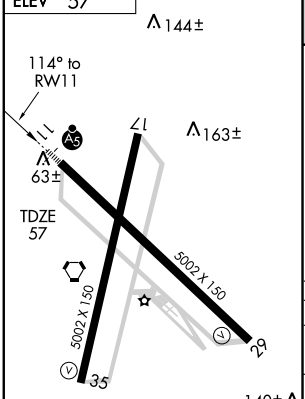
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP -0.3 NA. When local altimeter setting not received, use Brookings altimeter setting and increase all DA 98 feet and all MDA 100 feet. Increase LPV all Cats visibility ¼ mile, LNAV/VNAV all Cats visibility ¼ mile, LNAV Cat C and D ¼ mile, and Circling Cat C and D ¼ mile. VDP and Baro-VNAV NA when using Brookings altimeter setting. For inoperative MALSR, increase LNAV Cat D visibility to 1¼ mile. For inoperative MALSR when using Brookings altimeter setting, increase LPV all Cats visibility to 1¼ mile.

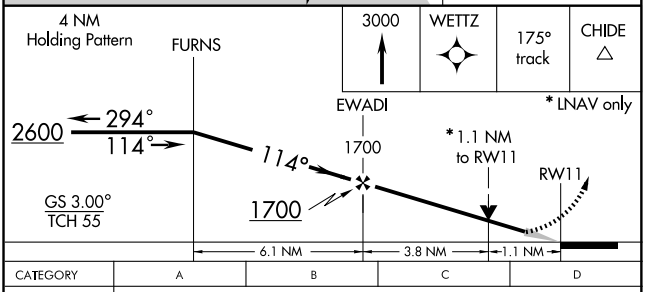
MALSR

MISSED APPROACH: Climb to 3000 direct WETTZ and via 175° track to CHIDE and hold, continue climb-in-hold to 3000.

ASOS	SEATTLE CENTER	OAKLAND RADIO	UNICOM
119.925	124.85 306.3	122.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	307-½	250 (300-½)		
LNAV/VNAV DA	556-1¼	499 (500-1¼)		
LNAV MDA	460-½	403 (500-½)	460-¾ 403 (500-¾)	460-1 403 (500-1)
CIRCLING	540-1	483 (500-1)	540-1½ 483 (500-1½)	640-2 583 (600-2)

HIRL Rwy 11-29 L
REIL Rwys 17, 29 and 35 L
MIRL Rwy 17-35 L

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC CEC	APP CRS	Rwy Idg	5002
109.0	126°	TDZE	60
Chan 27		Apt Elev	61

VOR/DME RWY 11

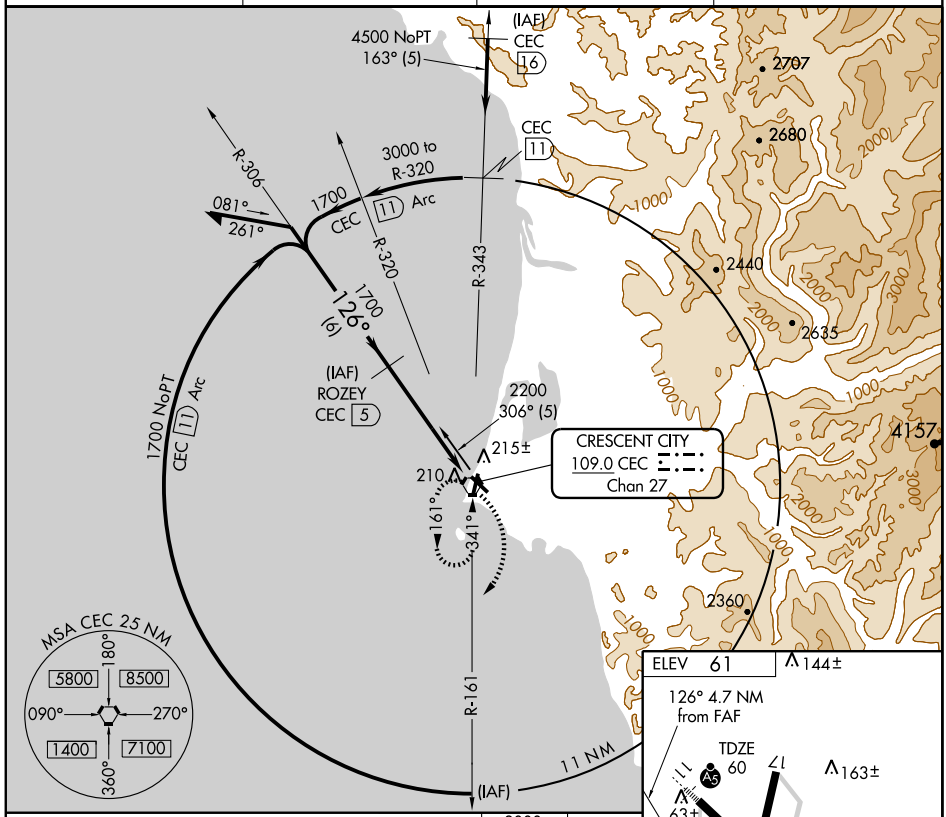
CRESCENT CITY/JACK MC NAMARA FIELD (CEC)

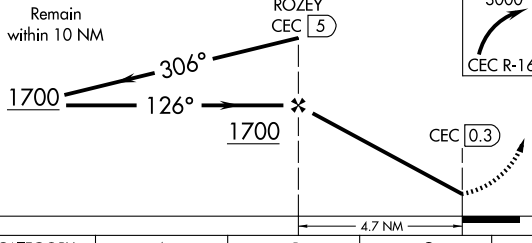
T Inoperative table does not apply to Cat D.

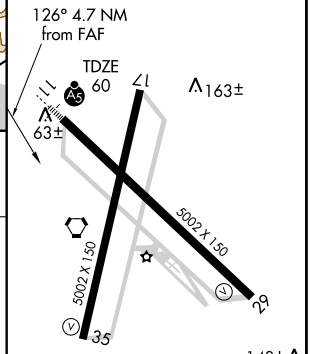
MALSR

MISSED APPROACH: Climbing right turn to 3000 via CEC R-161 then direct CEC VORTAC and hold.

ASOS	SEATTLE CENTER	OAKLAND RADIO	UNICOM
119.925	124.85 306.3	122.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-11	480-½	420 (500-½)	480-¾ 420 (500-¾)	480-1¼ 420 (500-1¼)
CIRCLING	540-1	479 (500-1)	540-1½ 479 (500-1½)	640-2 579 (600-2)

HIRL Rwy 11-29 L
REIL Rwys 17, 29 and 35 L
MIRL Rwy 17-35 L

SW-2, 14 JAN 2010 to 11 FEB 2010

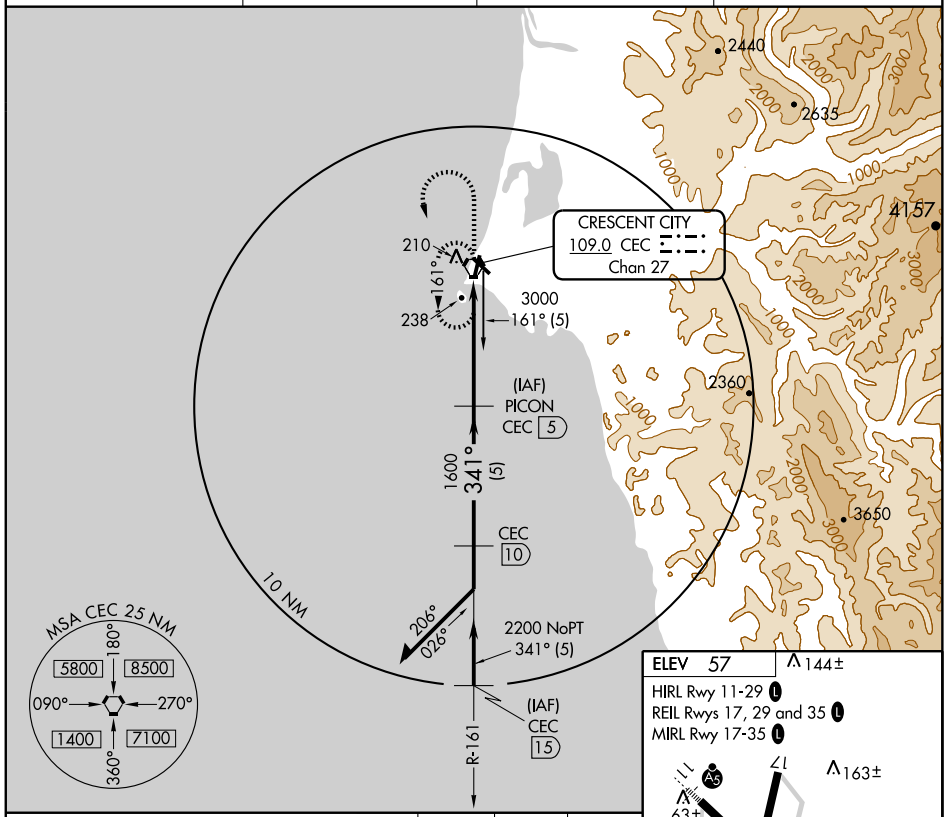
VORTAC CEC	APP CRS	Rwy Idg	5002
109.0	341°	TDZE	56
Chan 27		Apt Elev	57

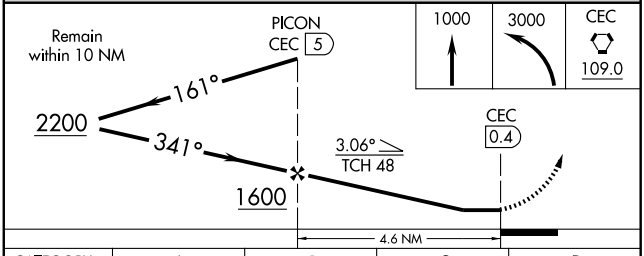
VOR/DME RWY 35

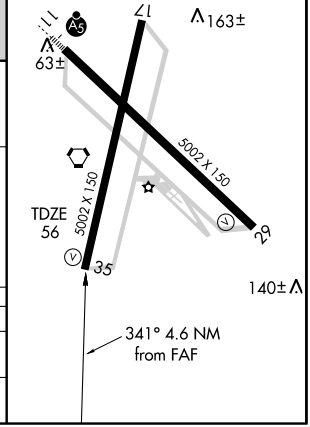
CRESCENT CITY/JACK MC NAMARA FIELD (CEC)

MISSED APPROACH: Climb to 1000 then climbing left turn to 3000 direct CEC VORTAC and hold.

ASOS	SEATTLE CENTER	OAKLAND RADIO	UNICOM
119.925	124.85 306.3	122.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-35	500-1	444 (500-1)	500-1¼ 444 (500-1¼)	500-1½ 444 (500-1½)
CIRCLING	540-1	483 (500-1)	540-1½ 483 (500-1½)	640-2 583 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC CEC	APP CRS	Rwy Idg	5002
109.0	126°	TDZE	57
Chan 27		Apt Elev	57

VOR RWY 11

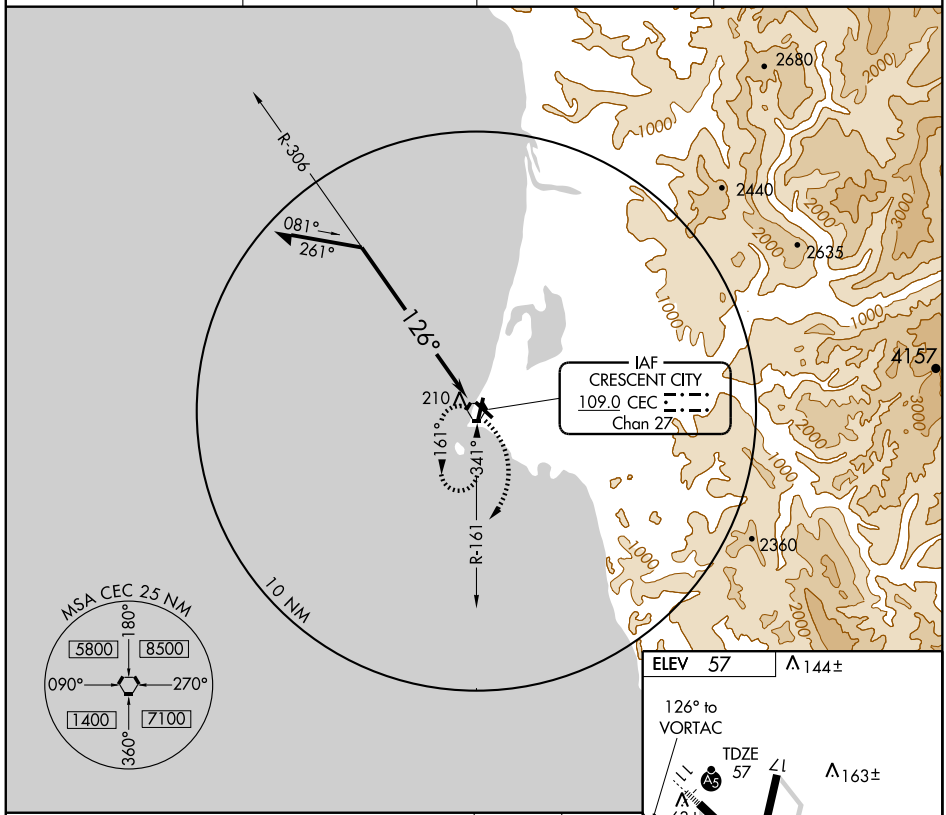
CRESCENT CITY/ JACK MC NAMARA FIELD (CEC)

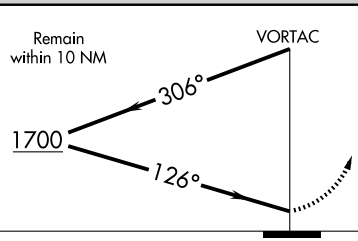
T Inoperative table does not apply to Cat D.

MALSR

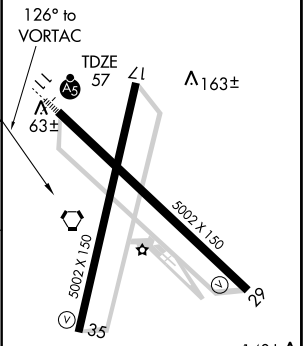
MISSED APPROACH: Climbing right turn to 3000 via CEC R-161 then direct CEC VORTAC and hold.

ASOS	SEATTLE CENTER	OAKLAND RADIO	UNICOM
119.925	124.85 306.3	122.3	122.8 (CTAF) L





3000	CEC
CEC R-161	109.0



ELEV 57 144±

CATEGORY	A	B	C	D
S-11	520-½ 463 (500-½)		520-¾ 463 (500-¾)	520-1½ 463 (500-1½)
CIRCLING	540-1 483 (500-1)		540-1½ 483 (500-1½)	640-2 583 (600-2)

HIRL Rwy 11-29 L
MIRL Rwy 17-35 L
REIL Rwys 17, 29 and 35 L

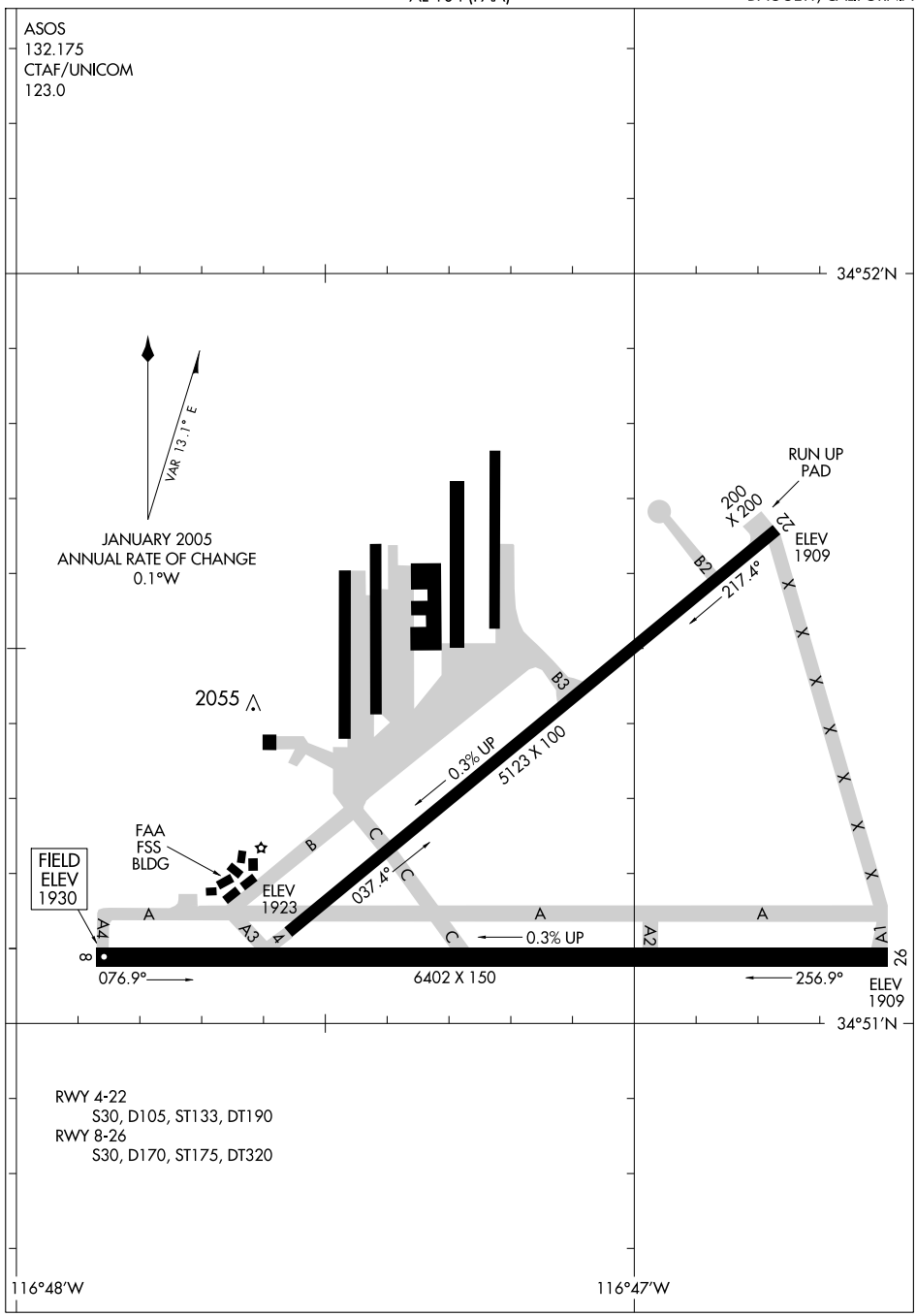
SW-2, 14 JAN 2010 to 11 FEB 2010

09239

AIRPORT DIAGRAM

AL-104 (FAA)

DAGGETT/BARSTOW-DAGGETT (DAG)
DAGGETT, CALIFORNIA



RWY 4-22
S30, D105, ST133, DT190
RWY 8-26
S30, D170, ST175, DT320

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	5123
216°	TDZE	1918
	Apt Elev	1930

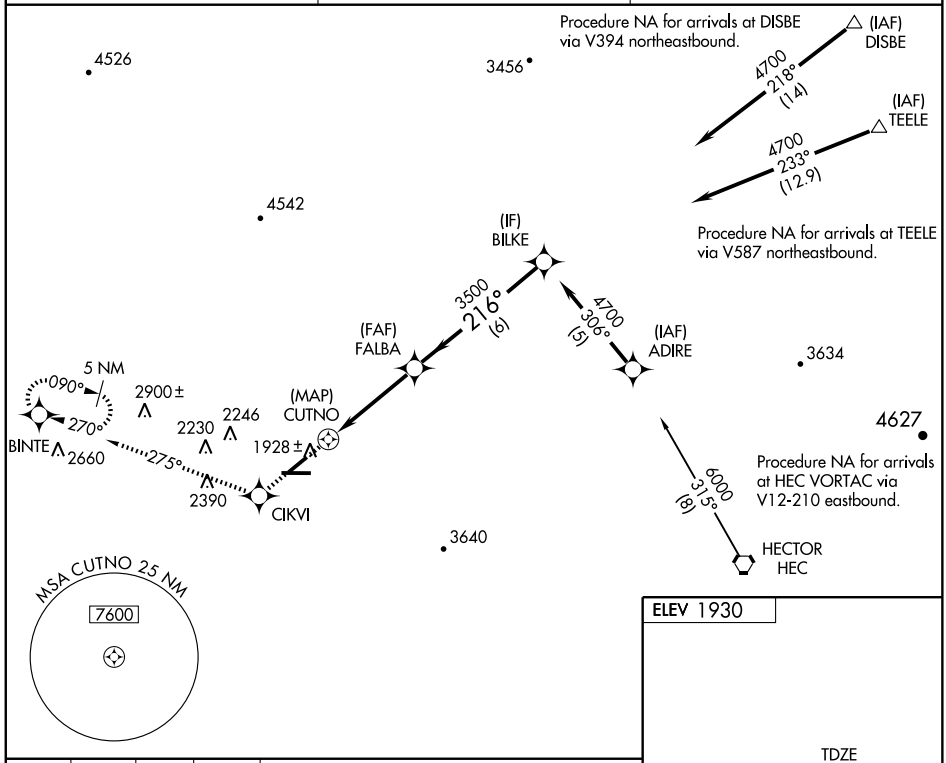
RNAV (GPS) RWY 22

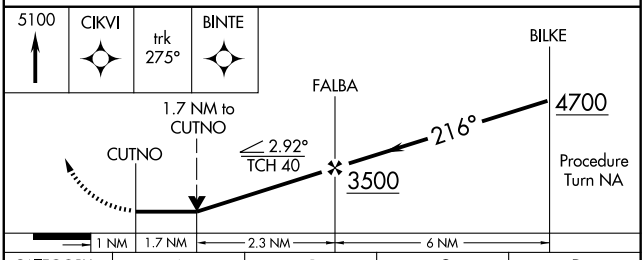
DAGGETT/BARSTOW-DAGGETT (DAG)

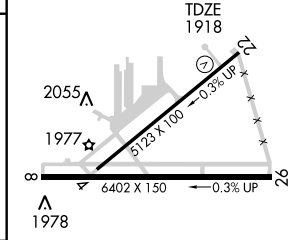
Circling NA for Cat D south of Rwy 8-26. DME/DME RNP- 0.3 NA.
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Victorville altimeter setting and increase all MDAs 220 feet. Increase LNAV and Circling Cat B/C visibility ¼ mile.
VDP NA when using Victorville altimeter setting.

MISSED APPROACH: Climb to 5100 direct CIKVI and via track 275° to BINTE and hold, continue climb-in-hold to 5100.

ASOS	LOS ANGELES CENTER	UNICOM
132.175	132.5 284.7	123.0 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	2800-1¼	882 (900-1¼)	2800-2¾ 882 (900-2¾)	2800-3 882 (900-3)
CIRCLING	2800-1¼	870 (900-1¼)	2860-2¾ 930 (1000-2¾)	2860-3 930 (1000-3)

MIRL Rwys 4-22 and 8-26 L

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	6402
CH 72813	255°	TDZE	1918
W26A		Apt Elev	1930

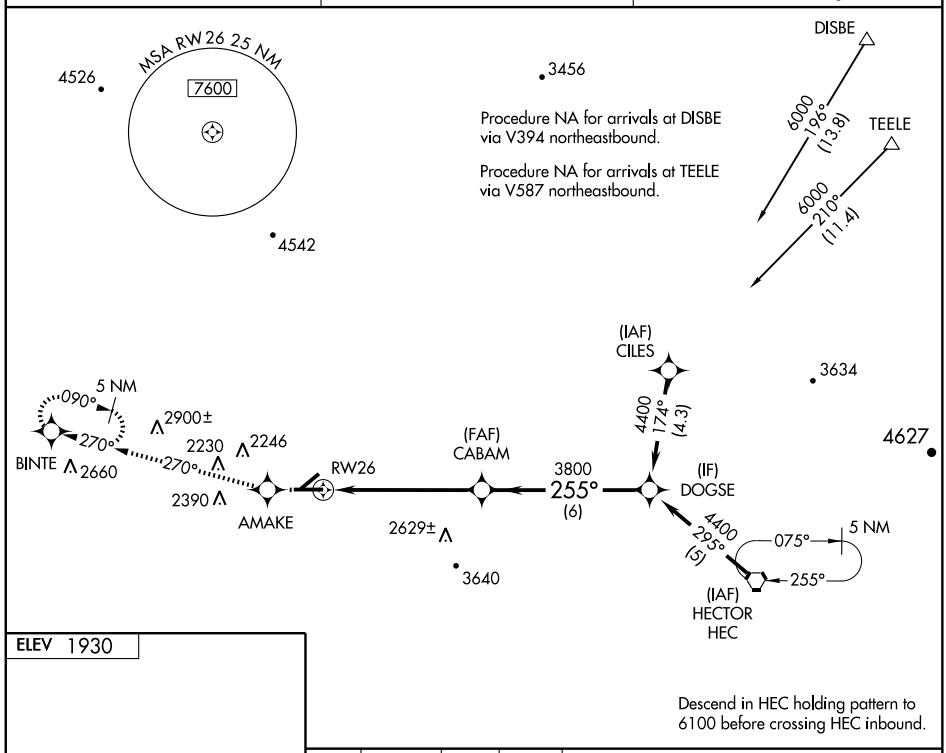
RNAV (GPS) RWY 26

DAGGETT/ BARSTOW-DAGGETT (DAG)

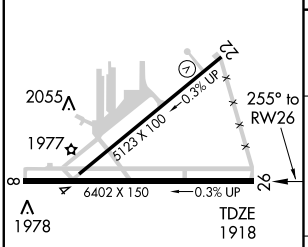
Circling NA for Cat D south of Rwy 8-26. DME/DME RNP- 0.3 NA.
Visibility reduction by helicopters NA. VDP NA when using Victorville altimeter setting.
When local altimeter setting not received, use Victorville altimeter setting and increase all DAs 211 feet and all MDAs 220 feet. Increase LPV all Cats visibility ¾ mile, LNAV Cat A/B ¼ mile, Cat C ¾ mile, Cat D ½ mile, Circling Cats A/B/C ¼ mile.

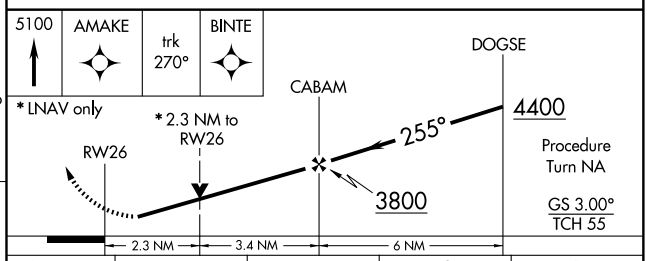
MISSED APPROACH: Climb to 5100 direct AMAKE and via track 270° to BINTE and hold, continue climb-in-hold to 5100.

ASOS	LOS ANGELES CENTER	UNICOM
132.175	132.5 284.7	123.0 (CTAF) L



Descend in HEC holding pattern to 6100 before crossing HEC inbound.





CATEGORY	A	B	C	D
LPV DA	2217-1 299 (300-1)			
LNAV MDA	2700-1 782 (800-1)	2700-1¼ 782 (800-1¼)	2700-2¼ 782 (800-2¼)	2700-2½ 782 (800-2½)
CIRCLING	2700-1 770 (800-1)	2780-1¼ 850 (900-1¼)	2860-2¾ 930 (1000-2¾)	2860-3 930 (1000-3)

MIRL Rwys 4-22 and 8-26 L

SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC DAG	APP CRS	Rwy Idg	5123
113.2	224°	TDZE	1918
Chan 79		Apt Elev	1930

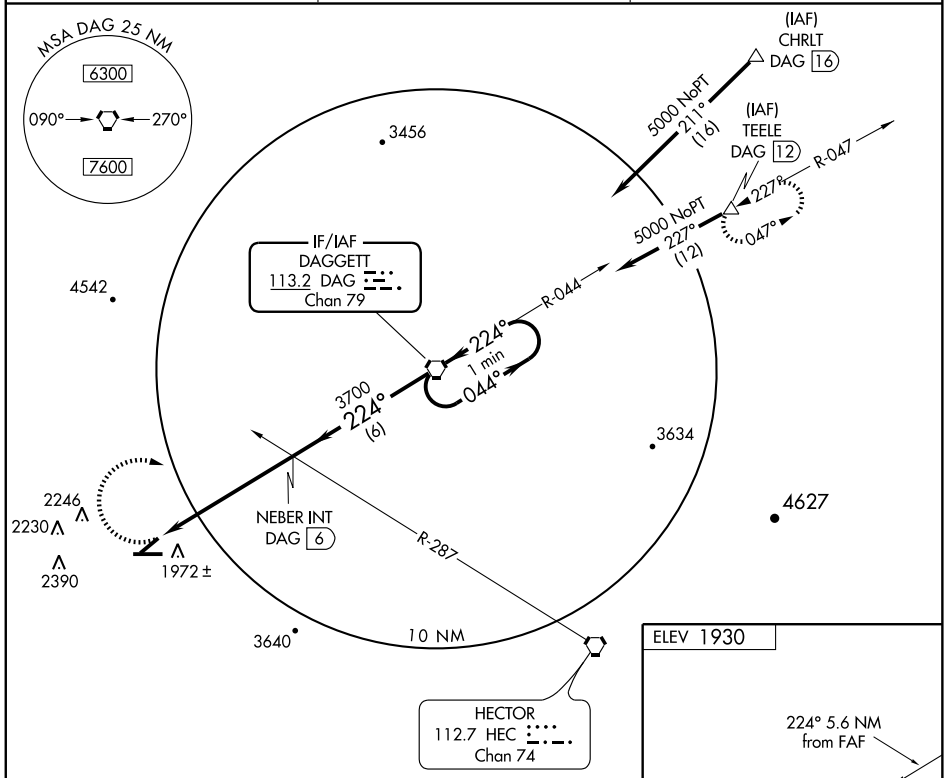
VOR or TACAN RWY 22

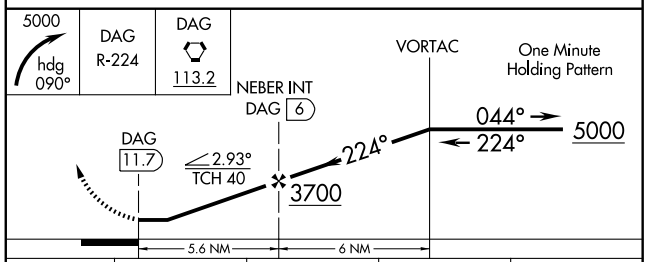
DAGGETT/BARSTOW-DAGGETT (DAG)

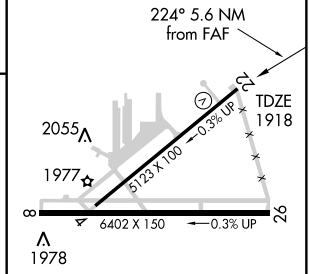
Circling NA for Cat D south of Rwy 8-26. Visibility reduction by helicopters NA. When local altimeter setting not received, use Victorville altimeter setting and increase all MDAs 220 feet.

MISSED APPROACH: Climbing right turn to 5000 via heading 090° and DAG VORTAC R-224 to DAG VORTAC and hold, continue climb-in-hold to 7500 (TACAN aircraft continue via DAG VORTAC R-047 to TEELE/12 DME and hold, continue climb-in-hold to 7500, hold NE, LT, 227° inbound).

ASOS	LOS ANGELES CENTER	UNICOM
132.175	132.5 284.7	123.0 (CTAF)







CATEGORY	A	B	C	D
S-22	3160-1¼ 1242 (1300-1¼)	3420-1½ 1502 (1500-1½)	3420-3 1502 (1500-3)	3540-3 1622 (1700-3)
CIRCLING	3160-1¼ 1230 (1300-1¼)	3420-1½ 1490 (1500-1½)	3420-3 1490 (1500-3)	3540-3 1610 (1700-3)

MIRL Rwys 4-22 and 8-26 C

FAF to MAP 5.6 NM					
Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3176
167°	TDZE	64
	Apt Elev	69

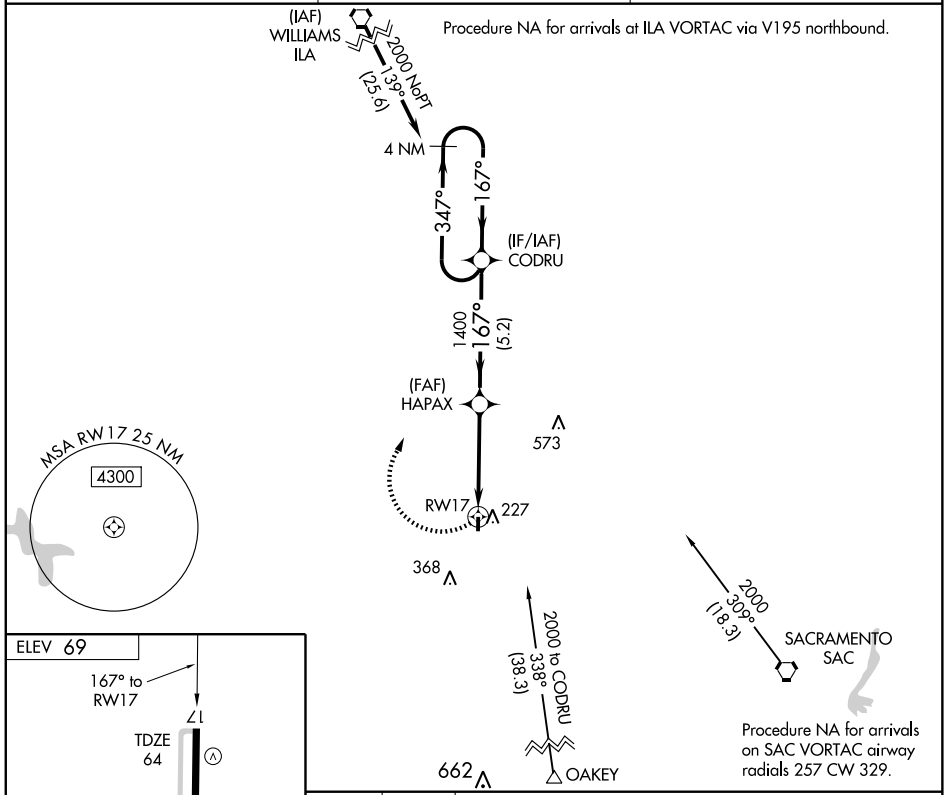
RNAV (GPS) RWY 17

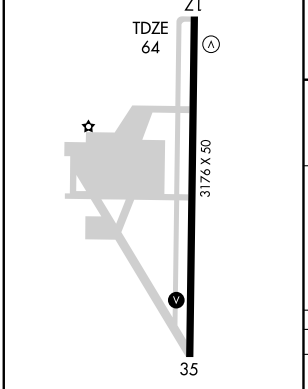
DAVIS/UNIVERSITY (EDU)

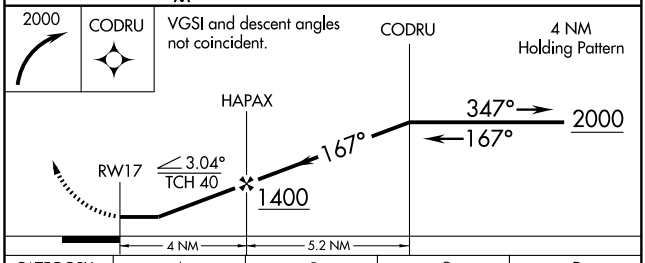
DME/DME RNP- 0.3 NA.
NA Visibility reduction by helicopters NA.
When local altimeter setting not received, use Travis AFB altimeter setting and increase all MDA 60 feet.

MISSED APPROACH: Climbing right turn to 2000 direct CODRU and hold.

AWOS-3	TRAVIS APP CON	UNICOM
119.025	126.6 291.0	123.075 (CTAF)







CATEGORY	A	B	C	D
LNAV MDA	520-1 456 (500-1)		NA	
CIRCLING	580-1 511 (600-1)		NA	

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	6000
149°	TDZE	99
	Apt Elev	100

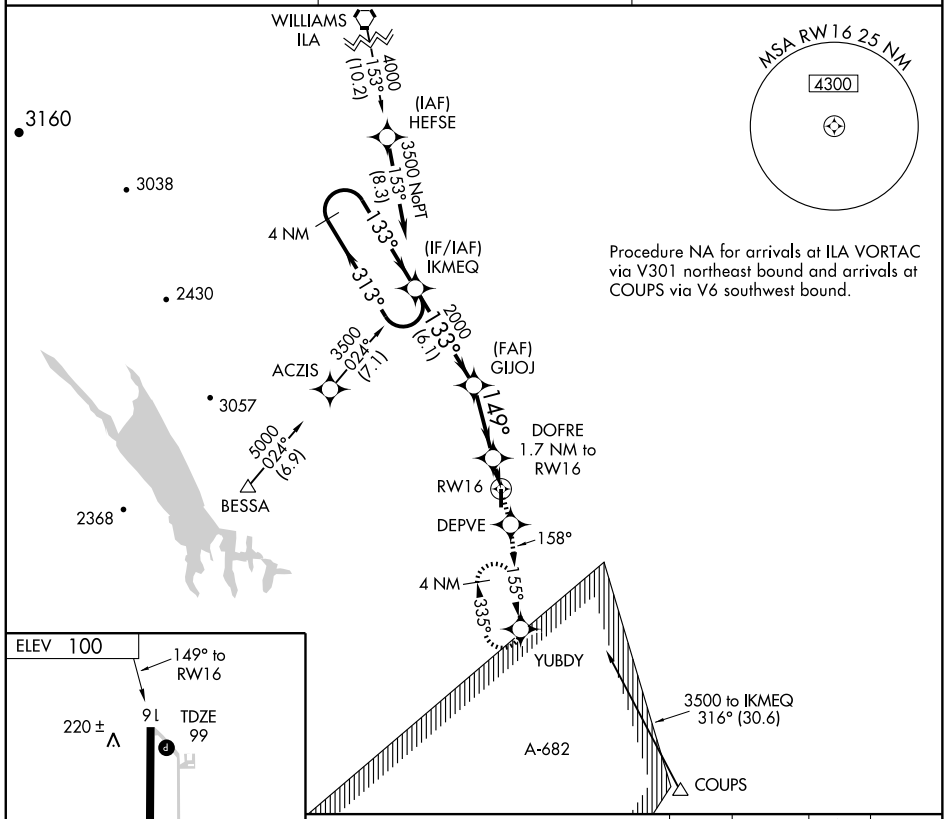
RNAV (GPS) RWY 16

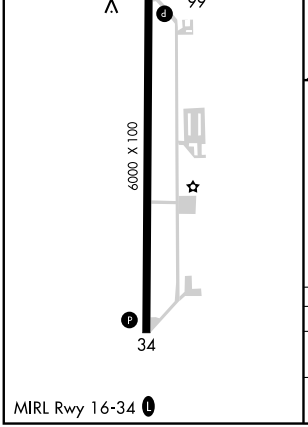
DAVIS/WOODLAND/WINTERS/ YOLO COUNTY (DWA)

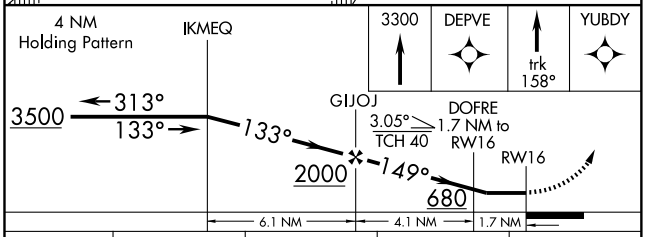
DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Travis AFB altimeter setting and increase all MDA 60 feet, and increase LNAV Cat C visibility ¼ mile.

MISSED APPROACH: Climb to 3300 direct DEPVE and via track 158° to YUBDY and hold, continue climb-in-hold to 3300.

AWOS-3	TRAVIS APP CON	UNICOM
125.775	126.6 291.0	123.0 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	540-1	441 (500-1)	540-1¼ 441 (500-1¼)	540-1½ 441 (500-1½)
CIRCLING	580-1	480 (500-1)	580-1½ 480 (500-1½)	660-2 560 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS		
334°	Rwy Idg	6000
	TDZE	100
	Apt Elev	100

RNAV (GPS) RWY 34

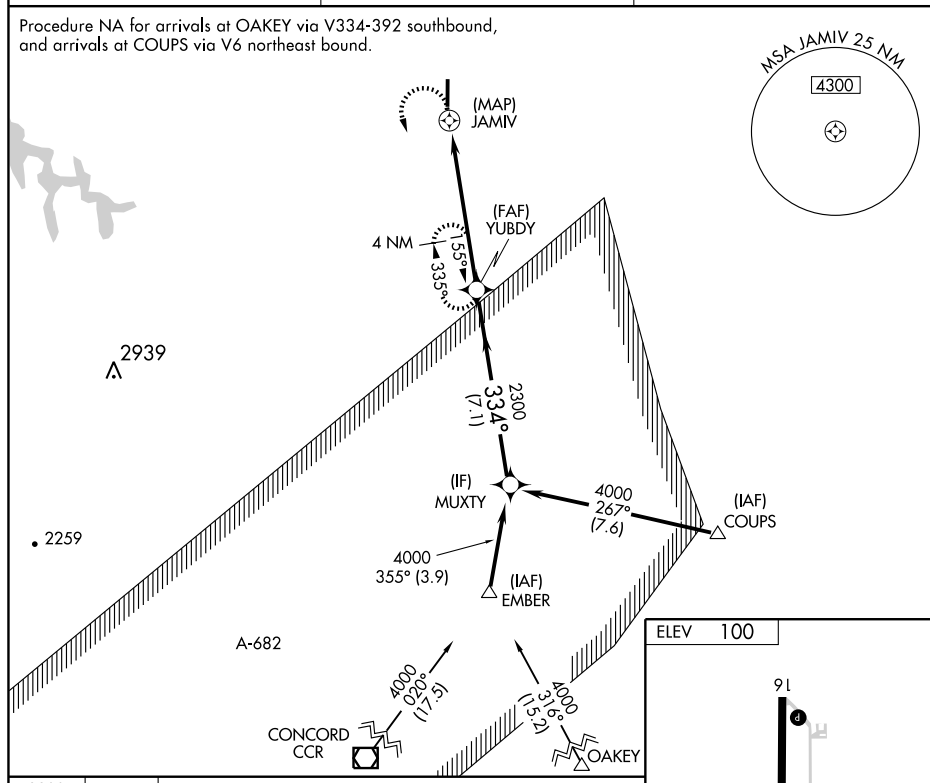
DAVIS/WOODLAND/WINTERS/ YOLO COUNTY (DWA)

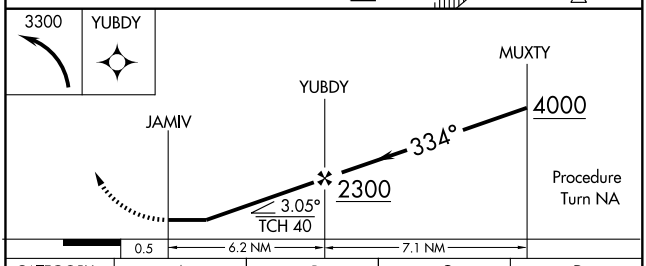
DME/DME RNP- 0.3 NA.
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Travis AFB altimeter setting and increase all MDA 60 feet, and increase LNAV Cats C and D visibility ¼ mile.

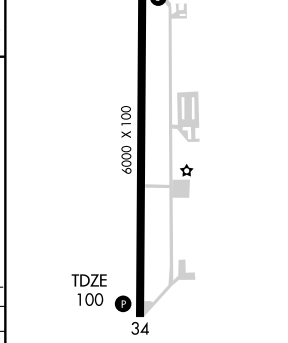
MISSED APPROACH: Climbing left turn to 3300 direct YUBDY and hold, continue climb-in-hold to 3300.

AWOS-3	TRAVIS APP CON	UNICOM
125.775	126.6 291.0	123.0 (CTAF) L

Procedure NA for arrivals at OAKEY via V334-392 southbound, and arrivals at COUPS via V6 northeast bound.







CATEGORY	A	B	C	D
LNAV MDA	580-1	480 (500-1)	580-1¼ 480 (500-1¼)	580-1½ 480 (500-1½)
CIRCLING	580-1	480 (500-1)	580-1½ 480 (500-1½)	660-2 560 (600-2)

MIRL Rwy 16-34 L

SW-2, 14 JAN 2010 to 11 FEB 2010

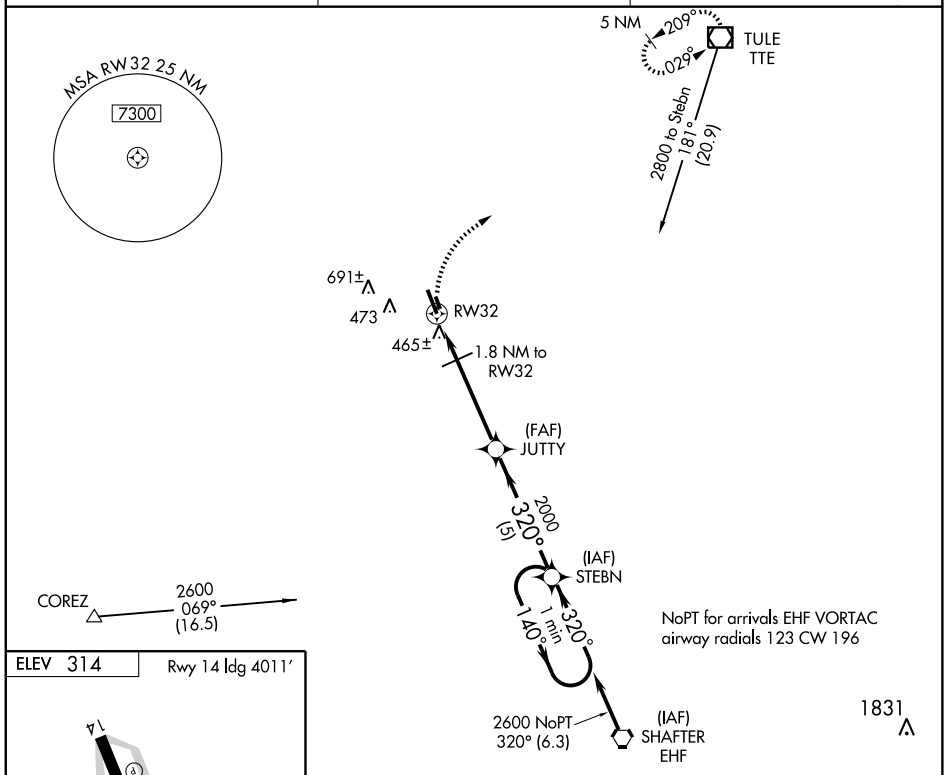
APP CRS	Rwy Idg	5651
320°	TDZE	313
	Apt Elev	314

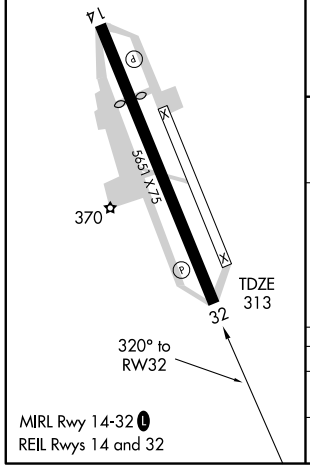
GPS RWY 32
DELANO MUNI (DLO)

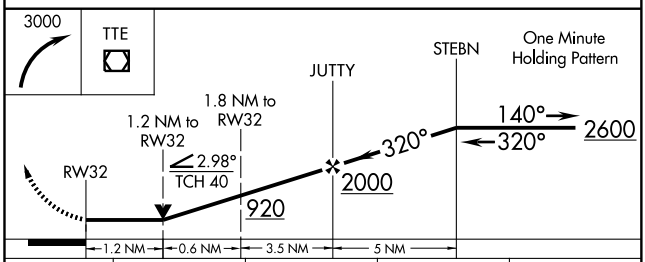
Circling not authorized Southwest of Rwy 14-32.

MISSED APPROACH: Climbing right turn to 3000 direct TTE VOR/DME and hold.

AWOS-3	BAKERSFIELD APP CON ★	UNICOM
119.55	118.9	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-32	720-1 407 (500-1)		720-1¼ 407 (500-1¼)	
CIRCLING	760-1 446 (500-1)	780-1 466 (500-1)	780-1½ 466 (500-1½)	880-2 566 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

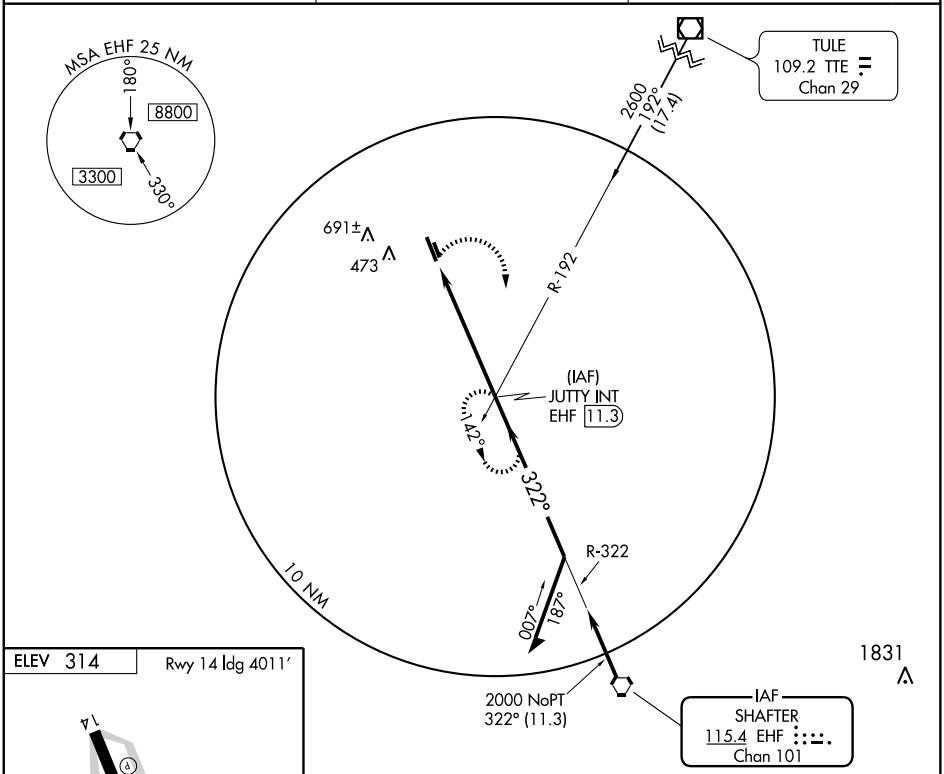
VORTAC EHF 115.4 Chan 101	APP CRS 322°	Rwy Idg 5651 TDZE 313 Apt Elev 314

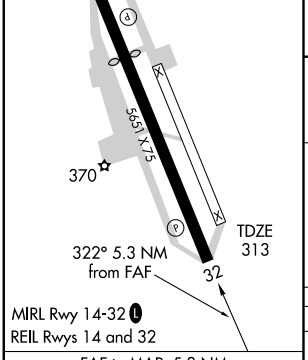
VOR RWY 32
DELANO MUNI (DLO)

Circling not authorized Southwest of Rwy 14-32.

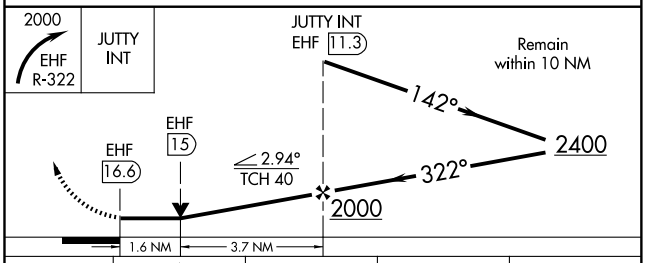
MISSED APPROACH: Climbing right turn to 2000 via EHF R-322 to JUTTY Int and hold.

AWOS-3	BAKERSFIELD APP CON ★	UNICOM
119.55	118.9	122.8 (CTAF)



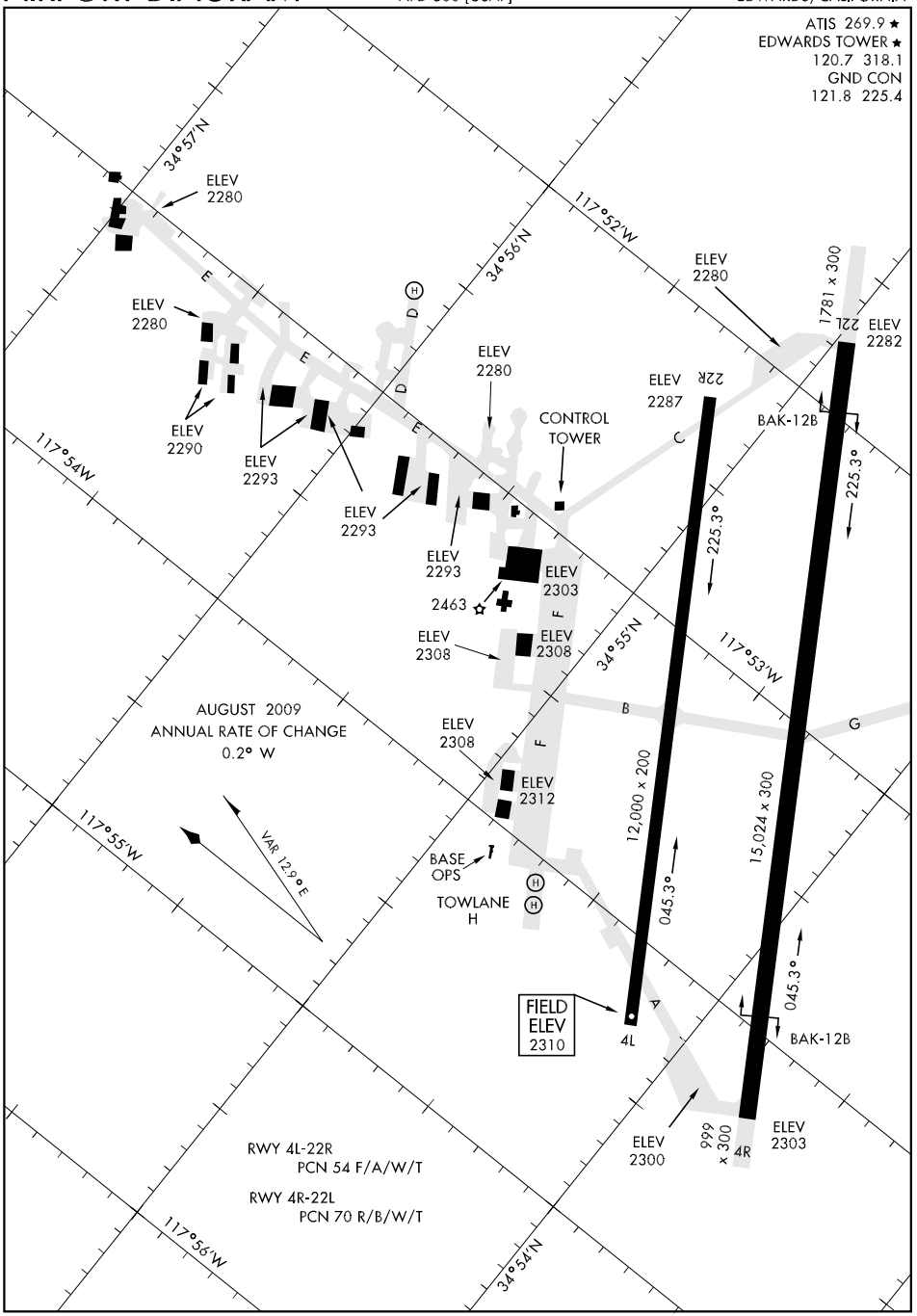


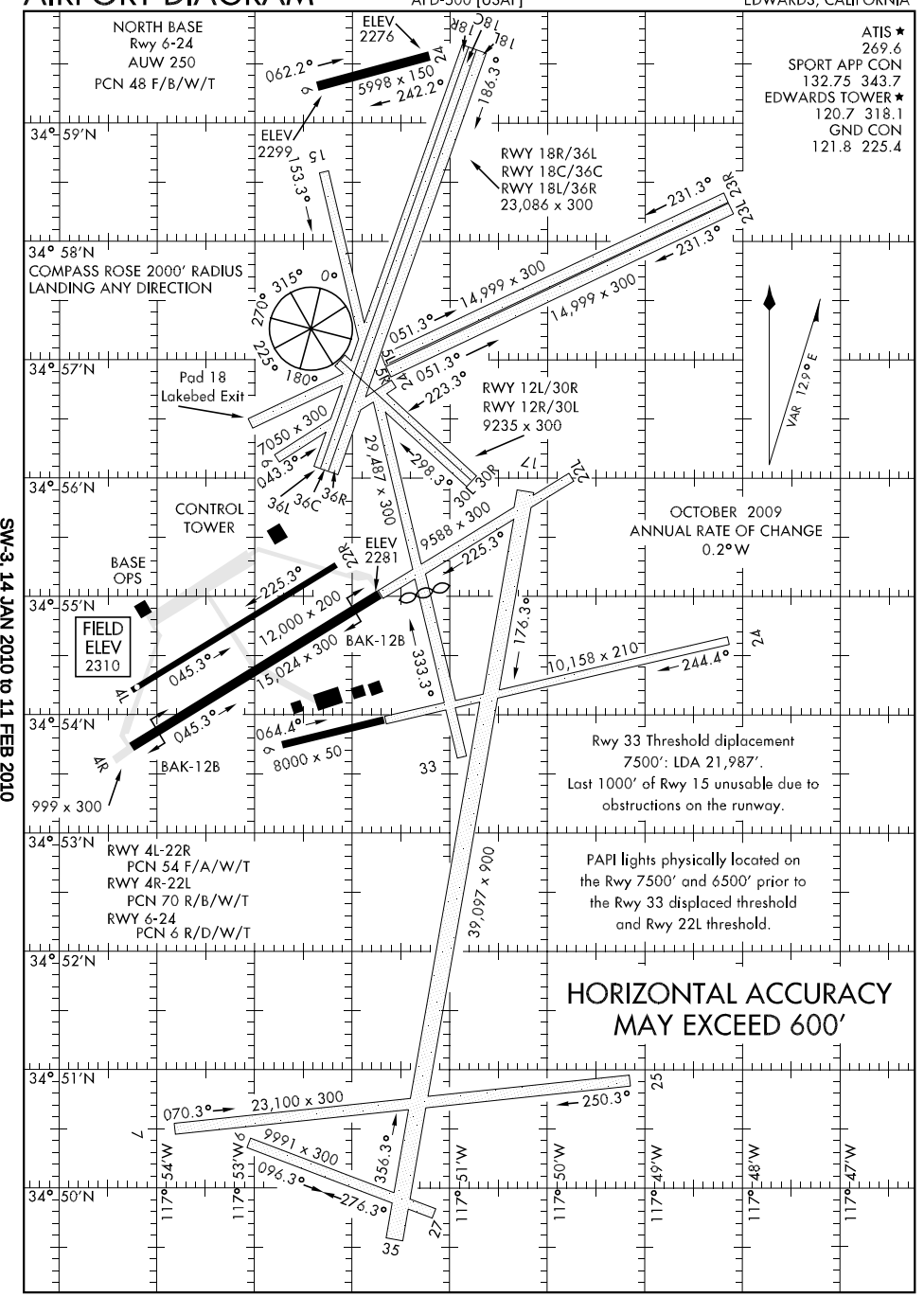
FAF to MAP 5.3 NM					
Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46



CATEGORY	A	B	C	D
S-32	860-1 547 (600-1)		860-1½ 547 (600-1½)	860-1¾ 547 (600-1¾)
CIRCLING	860-1 546 (600-1)		860-1½ 546 (600-1½)	880-2 566 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010


ATIS 269.9 ★
EDWARDS TOWER ★
120.7 318.1
GND CON
121.8 225.4
34°57'N
34°56'N
34°55'N
34°54'N
117°52'W
117°53'W
117°54W
117°55'W
117°56'W
ELEV 2280
ELEV 2280
ELEV 2280
ELEV 2280
ELEV 2290
ELEV 2293
ELEV 2293
ELEV 2293
ELEV 2287
ELEV 2282
ELEV 2303
2463
ELEV 2308
ELEV 2308
ELEV 2308
ELEV 2312
ELEV 2300
ELEV 2303
CONTROL TOWER
22R
22L
1781 x 300
225.3°
225.3°
12,000 x 200
15,024 x 300
045.3°
045.3°
999 x 300
BAK-12B
BAK-12B
AUGUST 2009
ANNUAL RATE OF CHANGE
0.2° W
VAR 12.9°E
BASE OPS
TOWLANE H
FIELD ELEV 2310
4L
4R
RWY 4L-22R
PCN 54 F/A/W/T
RWY 4R-22L
PCN 70 R/B/W/T



SW-3, 14 JAN 2010 to 11 FEB 2010

HI-ILS RWY 22L

LOC I-EDW	APCH CRS	Rwy ldg 15,024 TDZE 2285 Arpt Elev 2310
110.1	224°	

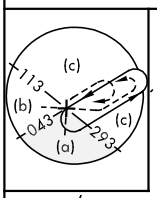
JAL-500 [USAF]

EDWARDS AFB (KEDW)

▼ * Circling not authorized NW of Rwy 4R-22L.

MISSED APPROACH: Track EDW VORTAC R-223 outbound. At 12 DME turn right direct EDW R-043/20 DME (COOLS) and hold. Maintain 11,000.

ATIS ★	SPORT APP CON	EDWARDS TOWER ★	GND CON
269.9	132.75 343.7	120.7 318.1	121.8 225.4



CAUTION: Do not mistake South Base Rwy 24 for Rwy 22L.

RADAR REQUIRED FOR HOLDING

(IAF) COOLS EDW

4584

20

R-043

EDW 30

223°

044°

043°

Max holding alt FL180

Min holding alt 11,000

3087

EDWARDS 116.4 EDW Chan 111

EDW 6 /RADAR

224°

272° (42)

DAGGETT

LOCALIZER 110.1 I-EDW

2650

3407

EDW 4 /RADAR

2416

EDW 12 /RADAR

R-223

4120

3000

20 NM

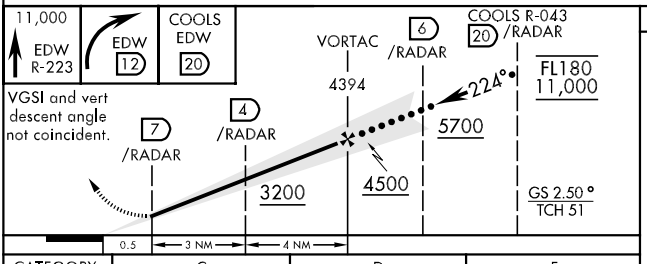
MSA EDW 25 NM

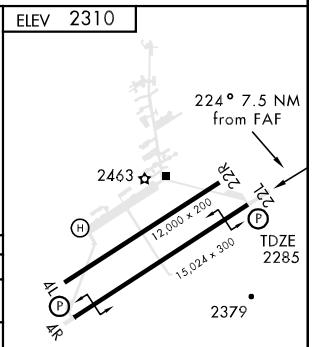
7800

RADAR or DME REQUIRED FOR LOCALIZER

HIGH ALTITUDE FACILITIES

EMERG SAFE ALT 100 NM 16,800





CATEGORY	C	D	E
S-ILS 22L	2485- ¾	200	(200-¾)
S-LOC 22L	2540-1	255	(300-1)
CIRCLING *	2880-1½ 578 (600-1½)	2880-2 578 (600-2)	3000-2½ 698 (700-2½)

VORTAC EDW 116.4 Chan 111	APCH CRS 043°	Rwy ldg 15,024 TDZE 2298 Arpt Elev 2310

HI-VOR/DME or TACAN RWY 4R

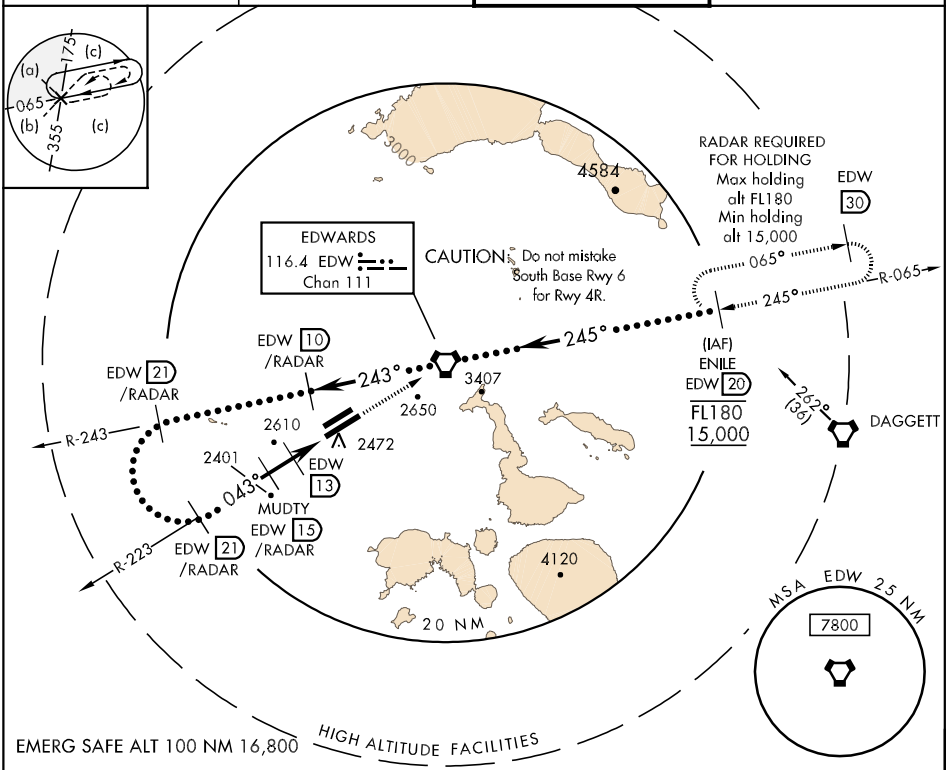
JAL-500 [USAF]

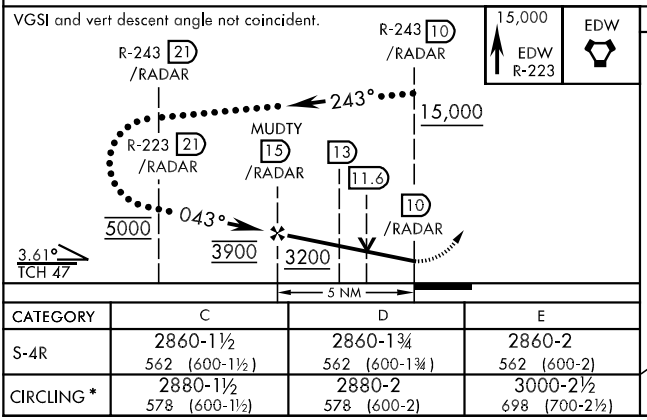
EDWARDS AFB (KEDW)

* Circling not authorized NW of Rwy 4R-22L.

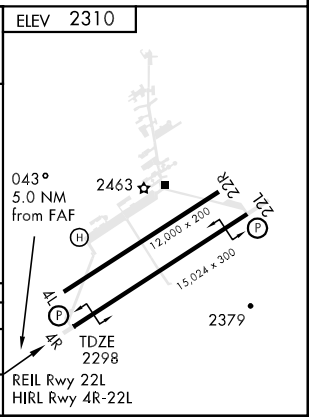
MISSED APPROACH: Track EDW VORTAC R-223 to EDW. Intercept EDW R-065 to 20 DME and hold. Maintain 15,000.

ATIS ★	SPORT APP CON	EDWARDS TOWER ★	GND CON
269.9	132.75 343.7	120.7 318.1	121.8 225.4





CATEGORY	C	D	E
S-4R	2860-1½ 562 (600-1½)	2860-1¾ 562 (600-1¾)	2860-2 562 (600-2)
CIRCLING *	2880-1½ 578 (600-1½)	2880-2 578 (600-2)	3000-2½ 698 (700-2½)



SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC EDW	APCH CRS	Rwy Idg 15,024
116.4	223°	TDZE 2285
Chan 111		Arpt Elev 2310

HI-VOR/DME or TACAN RWY 22L

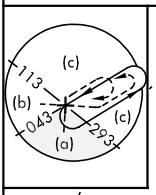
JAL-500 [USAF]

EDWARDS AFB (KEDW)

▼ * Circling not authorized NW of Rwy 4R-22L.

MISSED APPROACH: Track EDW VORTAC R-223 outbound. At 12 DME turn right direct EDW R-043/20 DME (COOLS) and hold. Maintain 11,000.

ATIS ★	SPORT APP CON	EDWARDS TOWER ★	GND CON
269.9	132.75 343.7	120.7 318.1	121.8 225.4



CAUTION: Do not mistake South Base Rwy 24 for Rwy 22L.

RADAR REQUIRED FOR HOLDING Max holding alt FL180

(IAF) COOLS EDW Min holding alt 11,000

R-043

223°

043°

EDW 30

4584

20

3087

EDWARDS 116.4 EDW Chan 111

EDW 6 /RADAR

223°

272° (42)

DAGGETT

2650

3407

EDW 4 /RADAR

2416

EDW 12 /RADAR

R-223

4120

20 NM

MSA EDW 25 NM

7800

RADAR or DME REQUIRED

HIGH ALTITUDE FACILITIES

EMERG SAFE ALT 100 NM 16,800

11,000 EDW R-223

EDW 12

COOLS EDW 20

VORTAC

6 /RADAR

COOLS R-043 20 /RADAR

223°

FL180 11,000

5800

4500

4 /RADAR

6.4

7 /RADAR

3200

0.5 3 NM 4 NM

ELEV 2310

223° 7.5 NM from FAF

2463

22R

22L

H

P

12,000 x 200

TDZE 2285

15,024 x 300

4L

4R

2379

CATEGORY	C	D	E
S-22L	2640-1 355 (400-1)	2640-1¼ 355 (400-1¼)	
CIRCLING *	2880-1½ 578 (600-1½)	2880-2 578 (600-2)	3000-2½ 698 (700-2½)

REIL Rwy 22L
HIRL Rwy 4R-22L

SW-3, 14 JAN 2010 to 11 FEB 2010

ILS RWY 22L

LOC I-EDW	APCH CRS	Rwy ldg	TDZE	Arpt Elev
110.1	224°	15,024	2285	2310

AL-500 [USAF]

EDWARDS AFB (KEDW)

* Circling not authorized NW of Rwy 4R-22L.

MISSED APPROACH: Track EDW VORTAC R-223 outbound. At 12 DME turn right direct EDW R-043/15 DME and hold. Maintain 7400.

ATIS ★	SPORT APP CON	EDWARDS TOWER ★	GND CON
269.9	132.75 343.7	120.7 318.1	121.8 225.4

RADAR or DME REQUIRED FOR LOCALIZER

EDWARDS 116.4 EDW Chan 111

LOCALIZER 110.1 I-EDW

(IAF) MORRI EDW 15 /RADAR 4584

R-043 223° 043° 224° 044°

EDW 25

RADAR REQUIRED FOR HOLDING Max holding alt 10,000 Min holding alt 7400

EDW 6 /RADAR

2650 3407

2610 2472

EDW 4 /RADAR

2755 ^

EDW 12 /RADAR 2401

R-223

4120

CAUTION: Do not mistake South Base Rwy 24 for Rwy 22L.

20 NM

MSA EDW 25 NM 7800

EMERG SAFE ALT 100 NM 16,800

7400 EDW R-223

EDW 12

MORRI

MORRI R-043 15 /RADAR

EDW VORTAC 4394

6 /RADAR

4 /RADAR

7 /RADAR

224° 10,000 7400

5700

VGSI and vert descent angle not coincident.

GS 2.50° TCH 51

3200 4500

0.5 NM 3 NM 4 NM

ELEV 2310

224° 7.5 NM from FAF

2463 ☆

22R 22L

12,000 x 200

15,024 x 300

TDZE 2285

2379

4L 4R

REIL Rwy 22L

HIRL Rwy 4R-22L

CATEGORY	A	B	C	D	E
S-ILS 22L	2485-¾		200	(200-¾)	
S-LOC 22L	2540-1		255	(300-1)	
CIRCLING *	2880-1	578 (600-1)	2880-1½ 578(600-1½)	2880-2 578 (600-2)	3000-2½ 698(700-2½)

SW-3, 14 JAN 2010 to 11 FEB 2010

RNAV (GPS) RWY 4R

APCH CRS	Rwy ldg	15,024
044°	TDZE	2298
	Arpt Elev	2310

AL-500 [USAF]

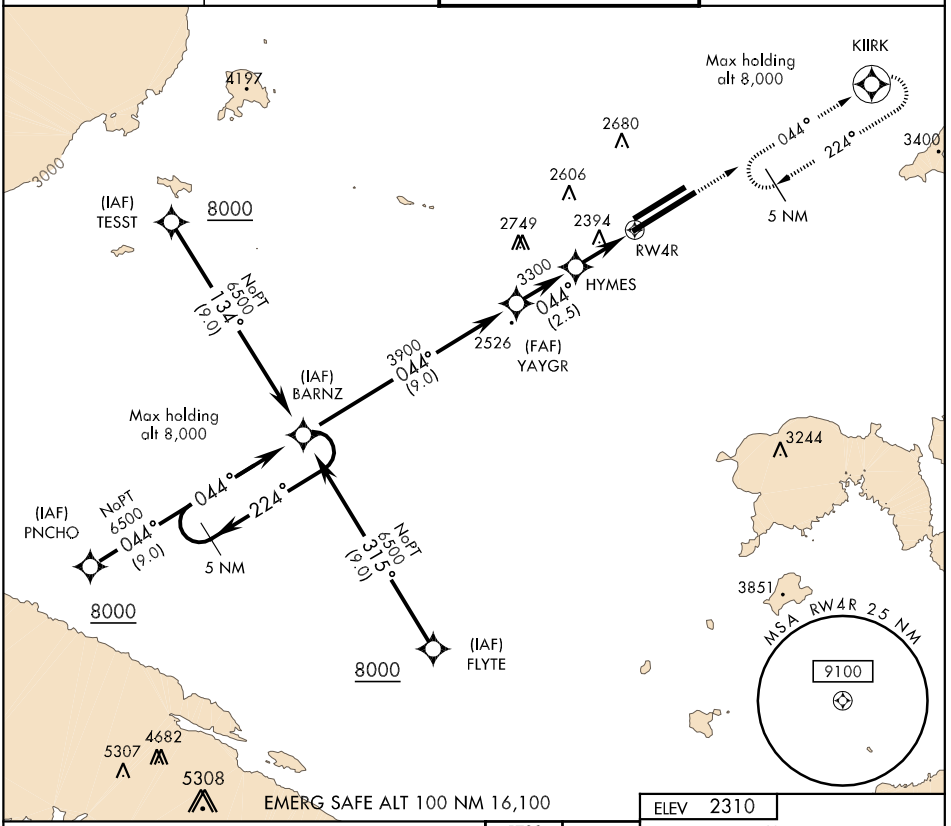
EDWARDS AFB (KEDW)

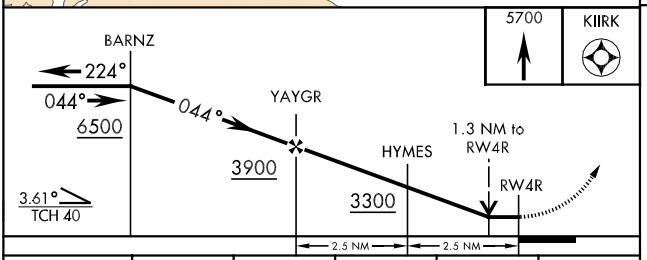
▼ * Circling not authorized NW of Rwy 4R-22L.

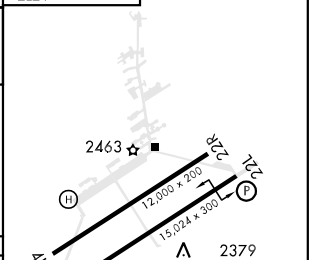
DME/DME RNP-0.3 NA

MISSED APPROACH: Proceed direct to KIIRK waypoint and hold. Maintain 5700.

ATIS ★	SPORT APP CON	EDWARDS TOWER ★	GND CON
269.9	132.75 343.7	120.7 318.1	121.8 225.4







CATEGORY	A	B	C	D	E
LNAV MDA	2840-1 542 (600-1)		2840-1¼ 542 (600-1¼)	2840-1½ 542 (600-1½)	2840-1¾ 542 (600-1¾)
CIRCLING *	2880-1 568 600-1)		2880-1½ 568(600-1½)	2880-2 568 (600-2)	3000-2½ 688(700-2½)

SW-3, 14 JAN 2010 to 11 FEB 2010

RNAV (GPS) RWY 22L

APCH CRS	Rwy ldg	15,024
224°	TDZE	2285
	Arpt Elev	2310

AL-500 [USAF]

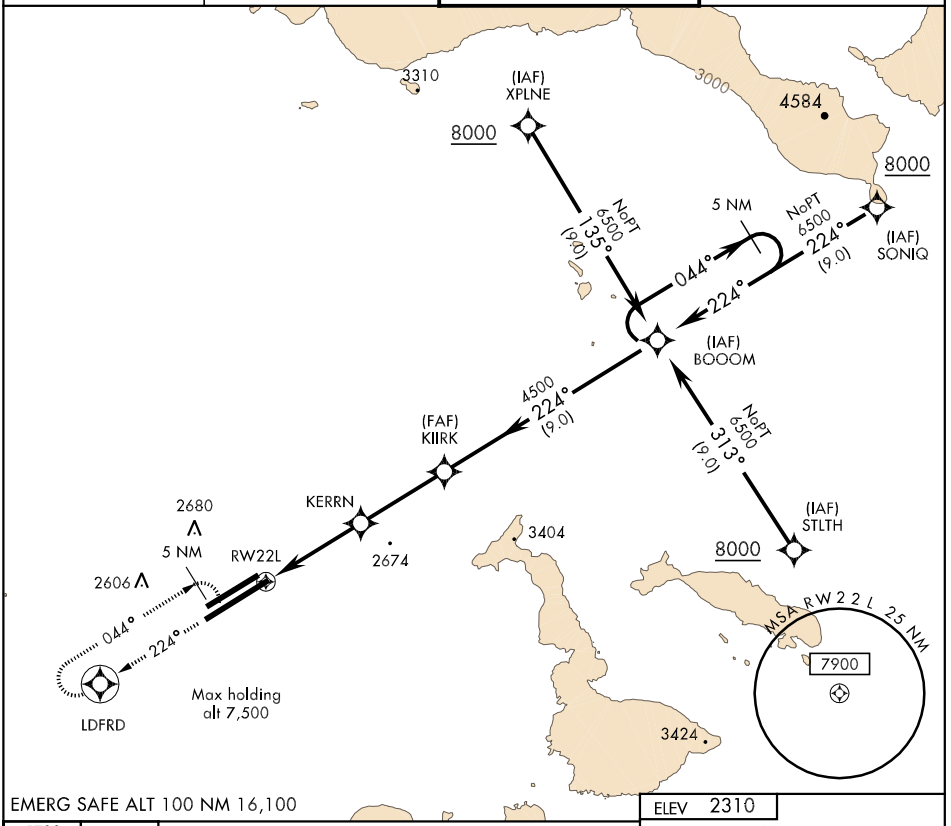
EDWARDS AFB (KEDW)

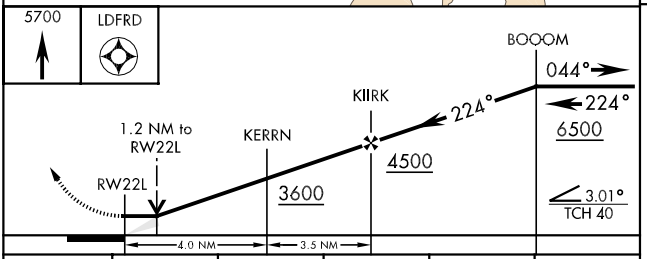
* Circling not authorized NW of Rwy 4R-22L.

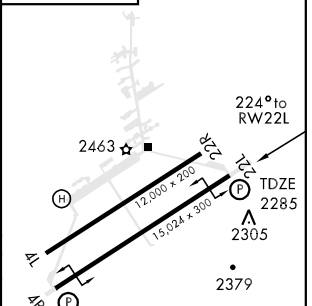
DME/DME RNP-0.3 NA

MISSED APPROACH: Proceed direct to LDFRD waypoint and hold. Maintain 5700.

ATIS ★	SPORT APP CON	EDWARDS TOWER ★	GND CON
269.9	132.75 343.7	120.7 318.1	121.8 225.4







CATEGORY	A	B	C	D	E
LNAV MDA	2700- ¾ 415 (400-¾)		2700-1 415 (400-1)		2700-1¼ 415(400-1¼)
CIRCLING *	2880-1 568 (600-1)		2880-1½ 568(600-1½)	2880-2 568 (600-2)	3000-2½ 688(700-2½)

SW-3, 14 JAN 2010 to 11 FEB 2010

VOR/DME or TACAN RWY 4L

VORTAC EDW	APCH CRS	Rwy Idg	12,000
116.4	046°	TDZE	2312
Chan 111		Arpt Elev	2310

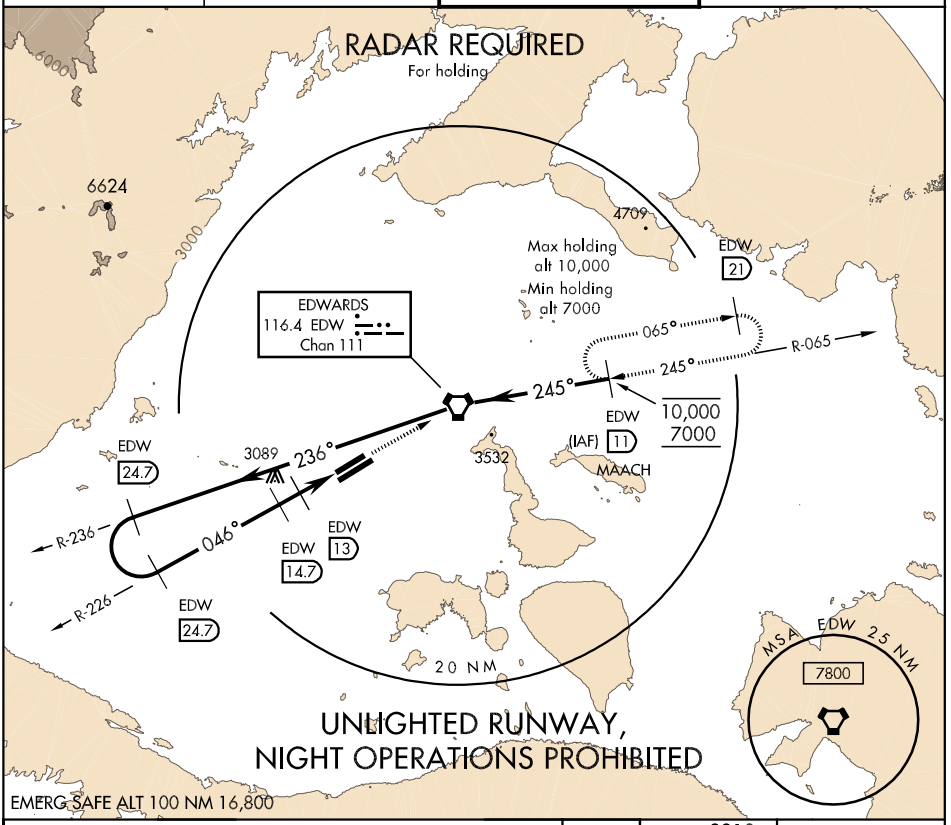
AL-500 [USAF]

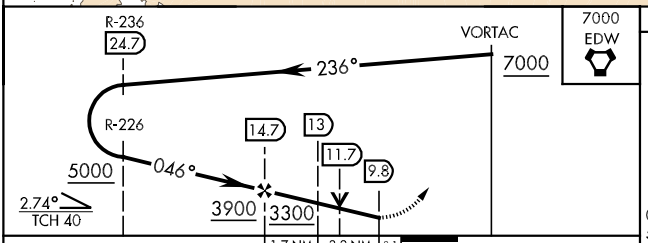
EDWARDS AFB (KEDW)

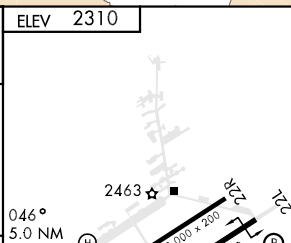
* Circling not authorized NW of Rwy 4L-22R. Circling NA at night to Rwy 22R.

MISSED APPROACH: Proceed direct EDW VORTAC, then intercept EDW R-065 to EDW 11 DME and hold. Maintain 7000.

ATIS ★	SPORT APP CON	EDWARDS TOWER ★	GND CON
269.9	132.75 343.7	120.7 318.1	121.8 225.4







CATEGORY	A	B	C	D	E
S-4L	2980-1	668 (700-1)	2980-1¾ 668 (700-1¾)	2980-2 668 (700-2)	2980-2¼ 668 (700-2¼)
CIRCLING*	2980-1	678 (700-1)	2980-2 678 (700-2)	2980-2¼ 678 (700-2¼)	3000-2½ 698 (700-2½)

VOR/DME or TACAN RWY 4R

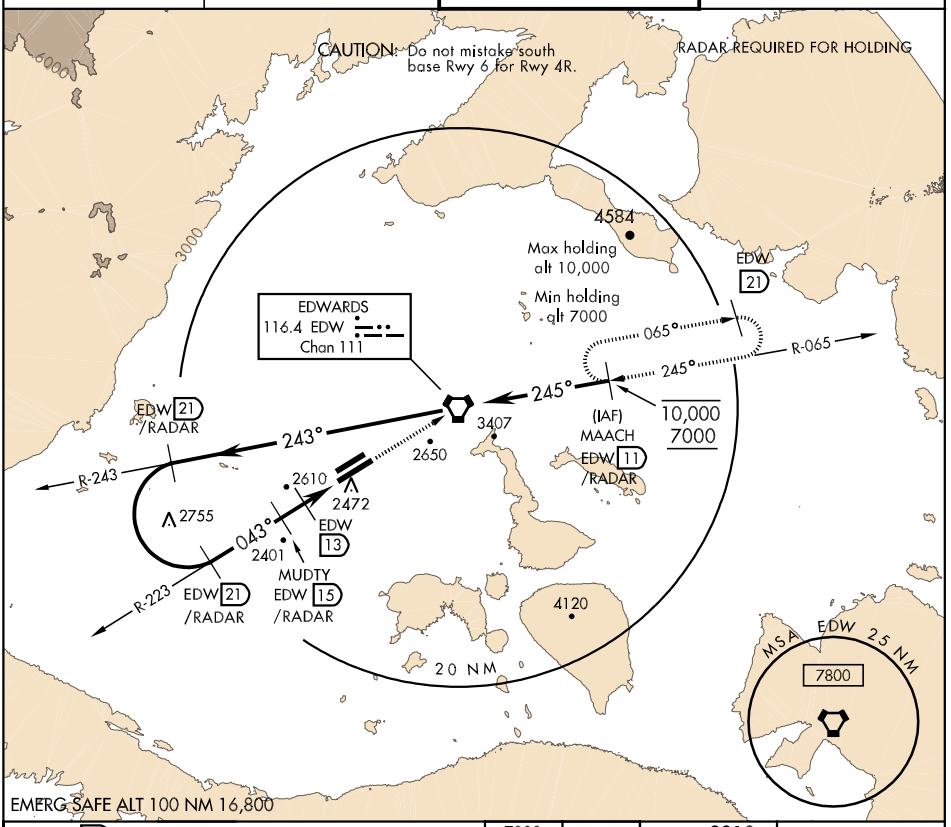
VORTAC EDW 116.4 Chan 111	APCH CRS 043°	Rwy Idg 15,024 TDZE 2298 Arpt Elev 2310

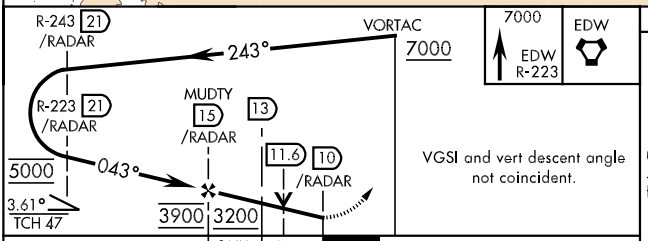
AL-500 [USAF] — EDWARDS AFB (KEDW)

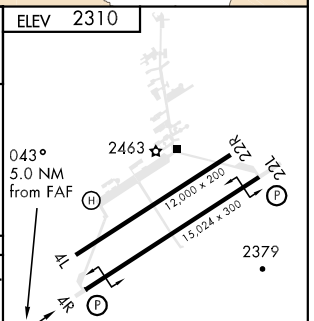
* Circling not authorized NW of Rwy 4R-22L.

MISSED APPROACH: Track EDW VORTAC R-223 to EDW. Intercept EDW R-065 to 11 DME and hold. Maintain 7000.

ATIS ★	SPORT APP CON	EDWARDS TOWER ★	GND CON
269.9	132.75 343.7	120.7 318.1	121.8 225.4







CATEGORY	A	B	C	D	E
S-4R	2860-1 562 (600-1)		2860-1½ 562 (600-1½)	2860-1¾ 562 (600-1¾)	2860-2 562 (600-2)
CIRCLING*	2880-1 578 (600-1)		2880-1½ 578 (600-1½)	2880-2 578 (600-2)	3000-2½ 698 (700-2½)

EDWARDS, CALIFORNIA

VOR/DME or TACAN RWY 22L

VORTAC EDW 116.4 Chan 111	APCH CRS 223°	Rwy ldg 15,024 TDZE 2285 Arpt Elev 2310

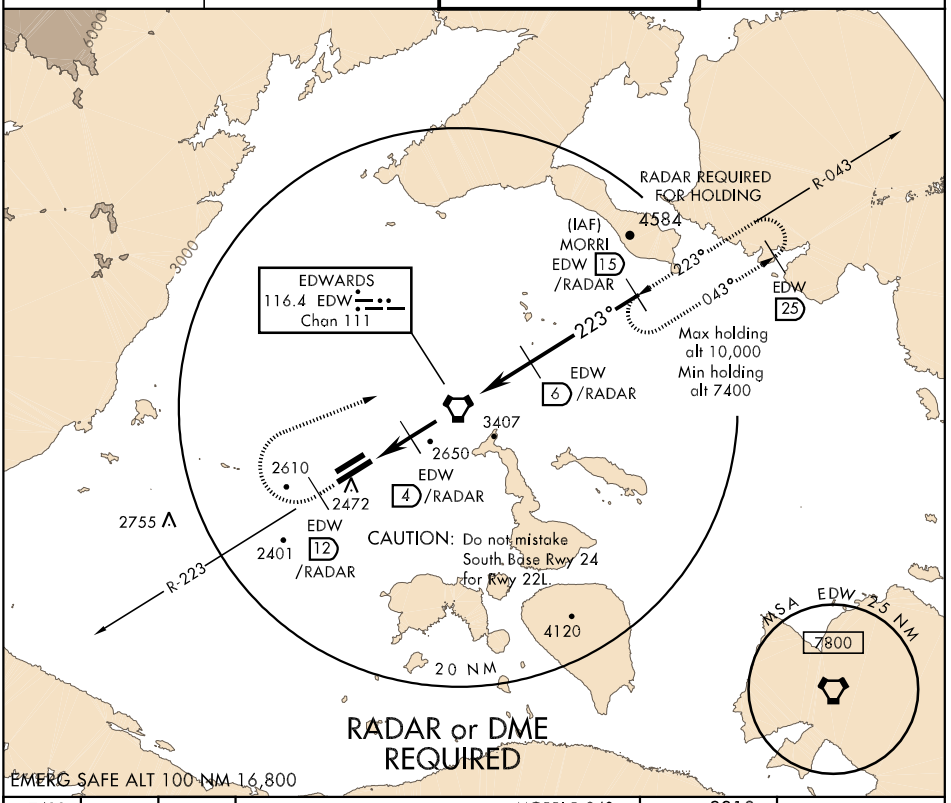
AL-500 [USAF]

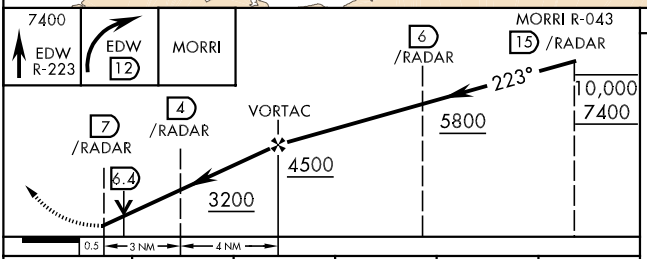
EDWARDS AFB (KEDW)

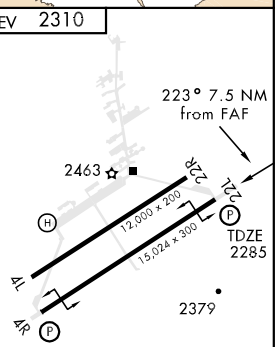
* Circling not authorized NW of Rwy 4R-22L.

MISSED APPROACH: Track EDW VORTAC R-223 outbound. At 12 DME turn right direct EDW R-043/15 DME and hold. Maintain 7400.

ATIS *	SPORT APP CON	EDWARDS TOWER *	GND CON
269.9	132.75 343.7	120.7 318.1	121.8 225.4







CATEGORY	A	B	C	D	E
S-22L	2640-1 355 (400-1)			2640-1¼ 355 (400-1¼)	
CIRCLING *	2880-1 578 (600-1)		2880-1½ 578(600-1½)	2880-2 578 (600-2)	3000-2½ 698(700-2½)

REIL Rwy 22L
HIRL Rwy 4R-22L

SW-3, 14 JAN 2010 to 11 FEB 2010

VOR/DME or TACAN RWY 22R

VORTAC EDW	APCH CRS	Rwy Idg 12,000
116.4	226°	TDZE 2292
Chan 111		Arpt Elev 2310

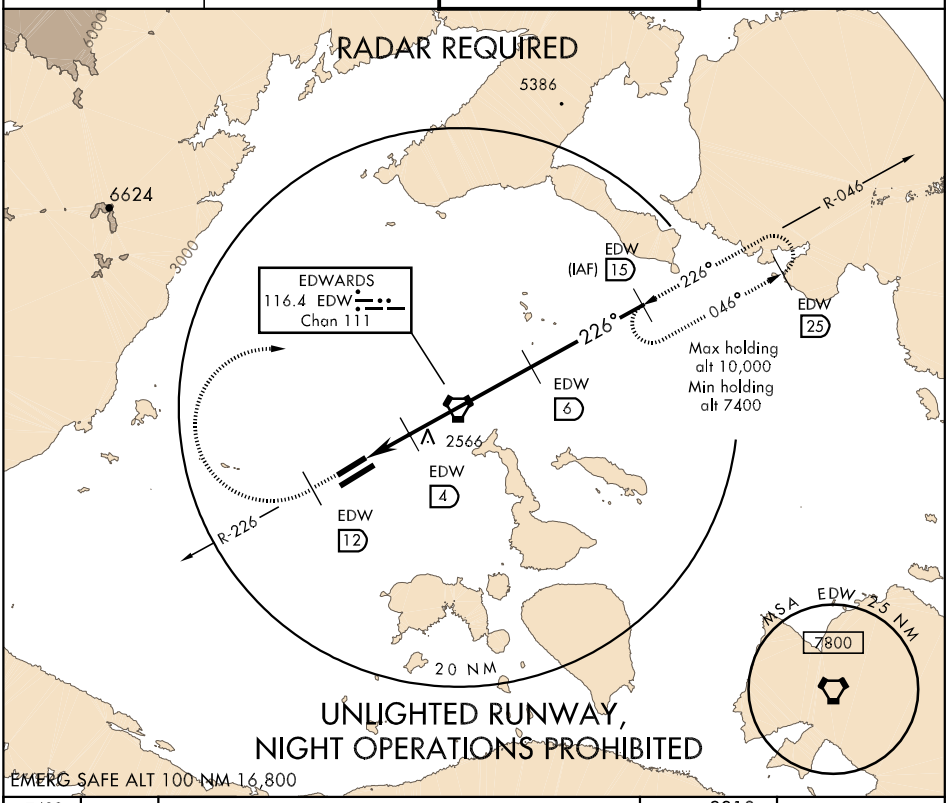
AL-500 [USAF]

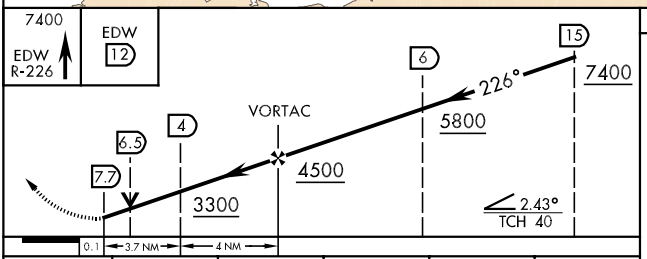
EDWARDS AFB (KEDW)

* Circling not authorized NW of Rwy 4L-22R. Circling NA at night to Rwy 4L.

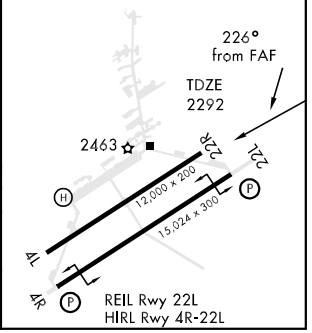
MISSED APPROACH: Track EDW VORTAC R-226 outbound. At EDW 12 DME turn right direct EDW R-046/15 DME and hold. Maintain 7400.

ATIS *	SPORT APP CON	EDWARDS TOWER *	GND CON
269.9	132.75 343.7	120.7 318.1	121.8 225.4



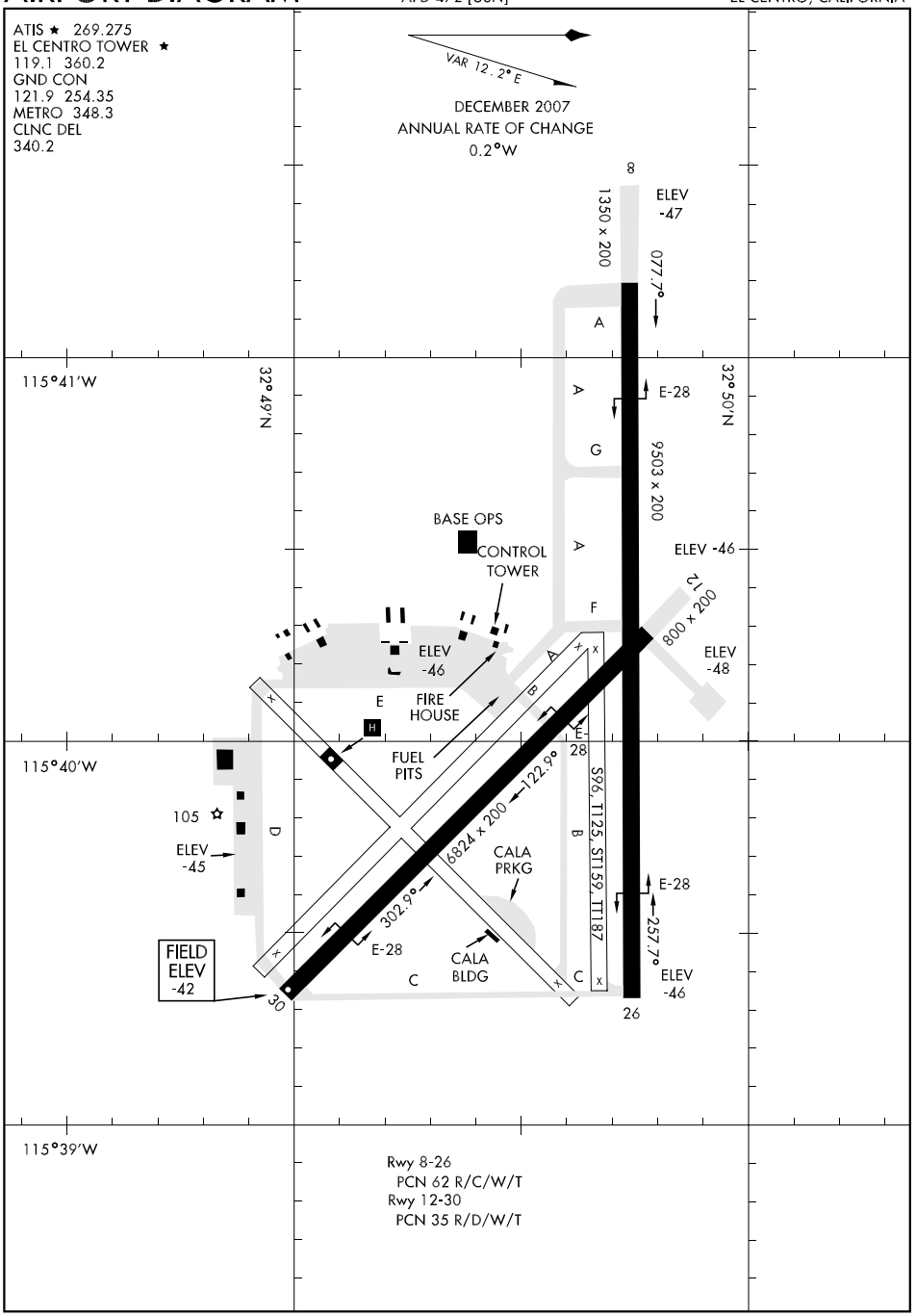


ELEV 2310



CATEGORY	A	B	C	D	E
S-22R	2740-1 448 (500-1)		2740-1¼ 448 (500-1¼)	2740-1½ 448 (500-1½)	
CIRCLING *	2880-1 578 (600-1)		2880-1½ 578(600-1½)	2900-2 598 (600-2)	3000-2½ 698(700-2½)

SW-3, 14 JAN 2010 to 11 FEB 2010



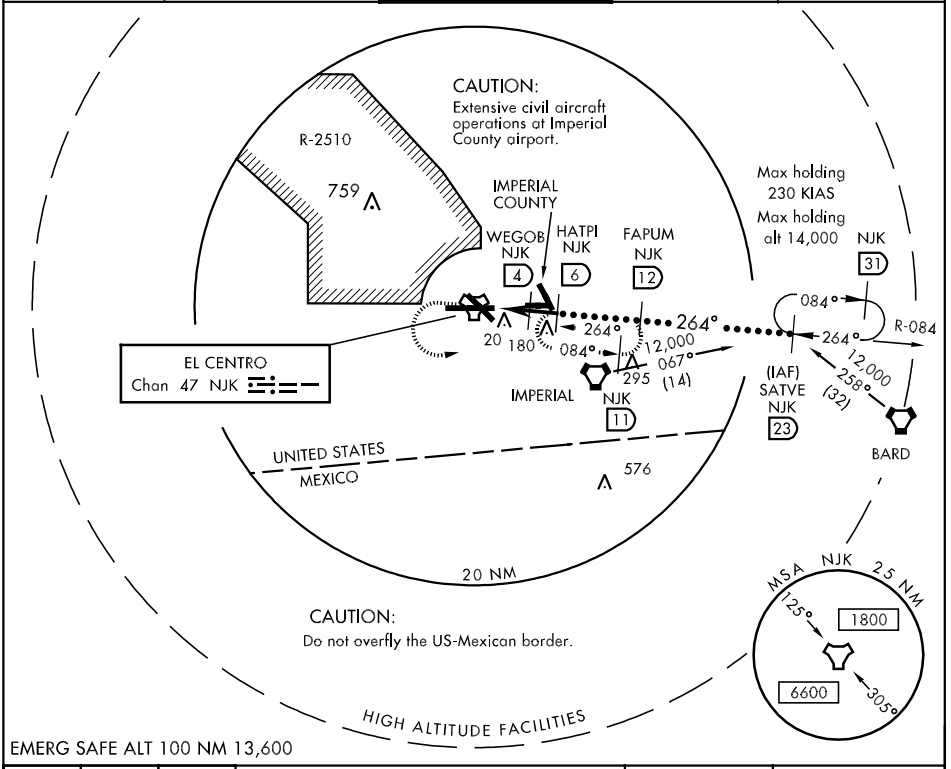
SW-3, 14 JAN 2010 to 11 FEB 2010

HI-TACAN RWY 26

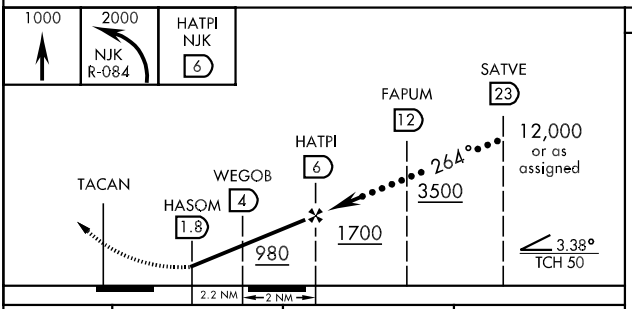
TACAN NJK Chan 47	APCH CRS 264°	Rwy ldg 9503 TDZE -45 Arpt Elev -42	JAL-472 [USN]	EL CENTRO NAF (KNJK)

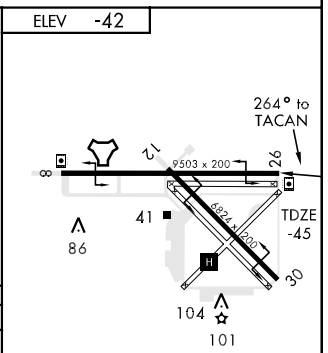
MISSED APPROACH: Climb to 1000, then climbing left turn to 2000, intercept NJK TACAN R-084 to HATPI and hold.

ATIS ★	LOS ANGELES CENTER	EL CENTRO TOWER ★	GND CON	CLNC DEL
269.275	128.6 291.7	119.1 360.2	121.9 254.35	340.2



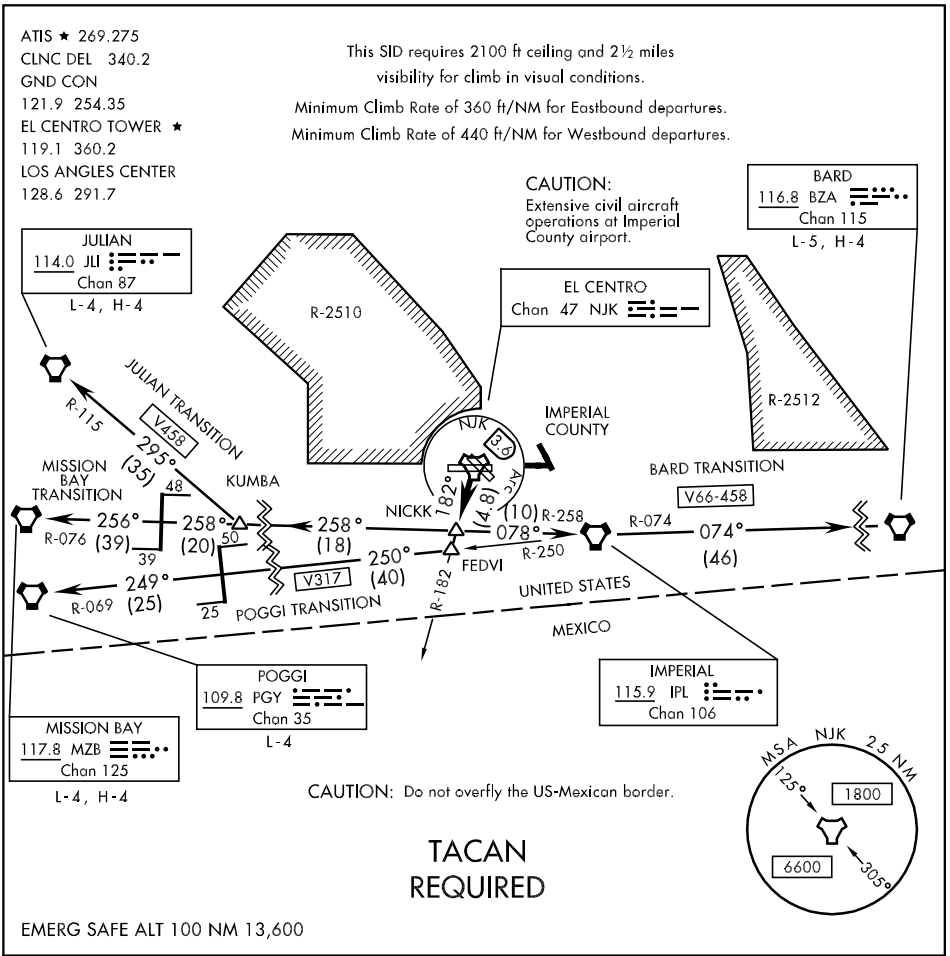
EMERG SAFE ALT 100 NM 13,600





CATEGORY	C	D	E
S-26	280-1 325 (400-1)		280-1¼ 325 (400-1¼)
CIRCLING	420-1½ 462 (500-1½)	520-2 562 (600-2)	

HIRL Rwys 8-26, 12-30



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF ALL RUNWAYS: Climb in visual conditions within 3.6 DME of NJK TACAN to cross NJK TACAN Southbound at or above 2000, then climb on NJK R-182 to NICKK. Then via assigned transition or route. Expect filed altitude 10 minutes after departure. Cross NICKK at or below 7000.

BARD TRANSITION (NICKK1•BZA): Via IPL VORTAC R-258 to IPL, then via IPL R-074 to BARD VORTAC.

JULIAN TRANSITION (NICKK1•JLI): From over NICKK via IPL VORTAC R-258 to KUMBA, then via JLI VORTAC R-115 to JLI. Cross KUMBA at or above 5600 climbing to 7700.

MISSION BAY TRANSITION (NICKK1•MZB): From over NICKK via IPL VORTAC R-258 and MZB VORTAC R-076 to MZB. Cross KUMBA at or above 6700 climbing to 8000.

POGGI TRANSITION (NICKK1•PGY): From over NICKK continue climb to 7000 via NJK R-182 to FEDVI, then via IPL VORTAC R-250 and PGY VORTAC R-069 to PGY.

RNAV (GPS) RWY 26

APCH CRS	Rwy ldg	9503
257°	TDZE	-45
	Arpt Elev	-42

AL-472 [USN]

EL CENTRO NAF (KNJK)

For uncompensated Baro VNAV systems, LNAV/VNAV NA below -14°C(6°F) or above 39°C(103°F). DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 500, then climbing left turn to 2000 direct ZIPAS and hold.

ATIS ★	LOS ANGELS CENTER	EL CENTRO TOWER ★	GND CON	CLNC DEL
269.275	128.6 291.7	119.1 360.2	121.9 254.35	340.2

CAUTION: Extensive civil aircraft operations at Imperial County airport.

Max speed all segments 200 KIAS

R-2510

IMPERIAL COUNTY

RW26

257°

1100

272° (4)

FOMTU

294

(FAF) CUNSA

1500

306° (4.9)

Max holding alt 4000

Max holding 200 KIAS

4 NM

075°

295

295

255°

3700

254° (7)

343

ARGUS

IMPERIAL

3700

074° (3)

(IAF) ZIPAS

UNITED STATES

MEXICO

576

CAUTION:

Do not overfly the US-Mexican border.

M.S.A RW26 25 NM

6600

EMERG SAFE ALT 100 NM 13,600

500 | 2000 | ZIPAS

* LNAV only

* .8 NM to RW26

RW26

257°

CUNSA

1100

FOMTU

1500

306°

272°

ZIPAS

2000

GS 3.03°

TCH 50

3.4 NM

ELEV -42

257° to RW26

TDZE -45

9503 x 200

12

26

8

41

86

H

104

101

30

HIRL Rwys 8-26, 12-30

CATEGORY	A	B	C	D
LNAV/ VNAV DA	280-1	325	(400-1)	
LNAV MDA	260-1	305	(400-1)	
CIRCLING	420-1 462 (500-1)		420-1½ 462 (500-1½)	520-2 562 (600-2)

RNAV (GPS) RWY 30

WAAS Chan 60099 W30A	APCH CRS 302°	Rwy ldg 6824 TDZE -42 Arpt Elev -42

AL-472 [USN]

EL CENTRO NAF (KNJK)

For uncompensated Baro VNAV systems, LNAV/VNAV NA below -14°C(6°F) or above 42°C(108°F). DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 500, then climbing left turn to 2000 direct ZIPAS and hold.

ATIS ★	LOS ANGELS CENTER	EL CENTRO TOWER ★	GND CON	CLNC DEL
269.275	128.6 291.7	119.1 360.2	121.9 254.35	340.2

CAUTION: Extensive civil aircraft operations at Imperial County airport.

Max speed all segments 200 KIAS

R-2510

IMPERIAL COUNTY

RW30

Max holding alt 4000

Max holding 200 KIAS

302°

238

3700

074°

(3)

4 NM

343

075°

295

295

3700

254°

(7)

ARGUS

1100

287°

(4)

(FAF)

LAMAW

IMPERIAL

255°

NORWE

1500

251°

(4.6)

(IAF)

ZIPAS

UNITED STATES

MEXICO

MSA RW30 25 NM

6600

CAUTION:

Do not overfly the US-Mexican border.

576

EMERG SAFE ALT 100 NM 13,600

500 | 2000 | ZIPAS

* LNAV only

* 1.1 NM to RW30

RW30

302°

LAMAW

1100

287°

NORWE

1500

251°

ZIPAS

2000

GS 3.00°

TCH 50

3.4 NM

ELEV -42

9503 x 200

12

26

8

41

86

6821 x 200

H

30

104

101

302° to RW30

TDZE -42

HIRL Rwys 8-26, 12-30

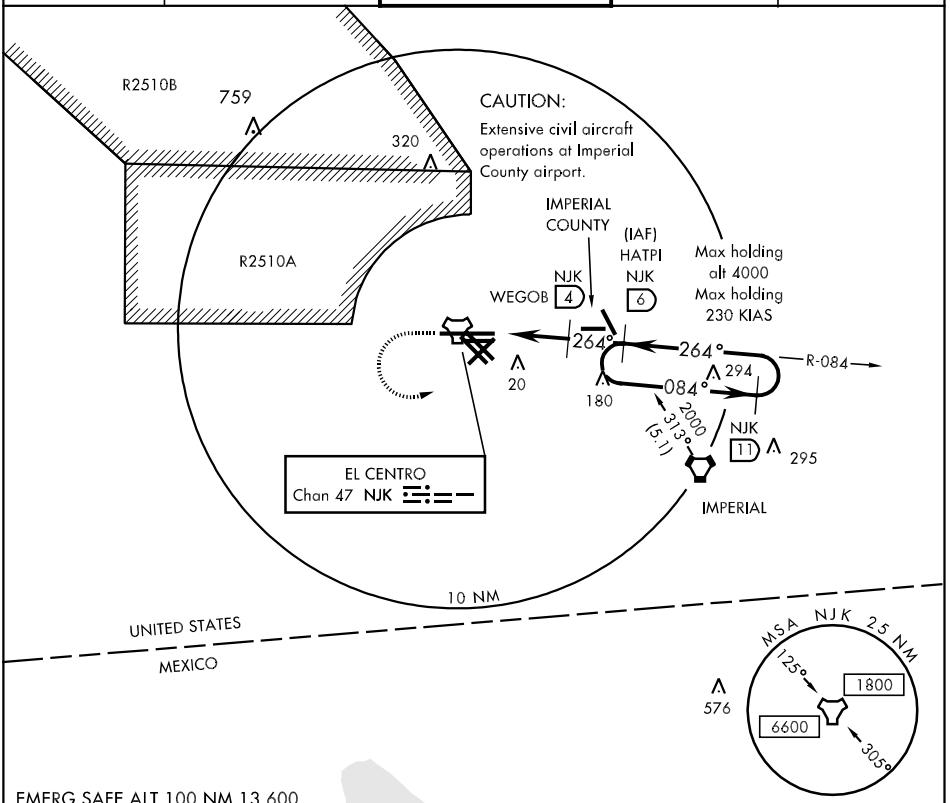
CATEGORY	A	B	C	D
LPV DA	158-¾	200	(200-¾)	
LNAV/ VNAV DA	280-1	322	(400-1)	
LNAV MDA	360-1	402	(500-1)	
CIRCLING	420-1 462 (500-1)	420-1½ 462 (500-1½)	520-2 562 (600-2)	

TACAN RWY 26

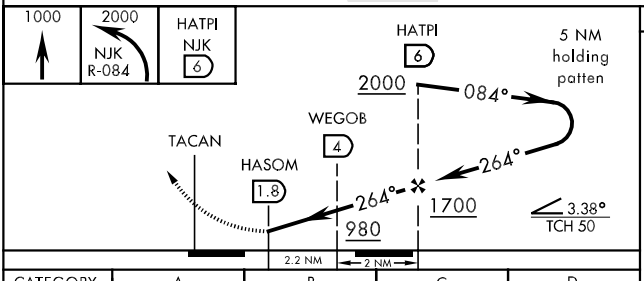
TACAN NJK Chan 47	APCH CRS 264°	Rwy ldg 9503 TDZE -45 Arpt Elev -42	AL-472 [USN]	EL CENTRO NAF (KNJK)

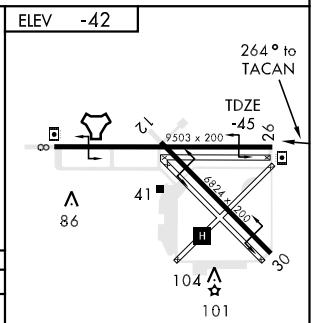
MISSED APPROACH: Climb to 1000, then climbing left turn to 2000, intercept NJK TACAN R-084 to HATPI and hold.

ATIS ★	LOS ANGELES CENTER	EL CENTRO TOWER ★	GND CON	CLNC DEL
269.275	128.6 291.7	119.1 360.2	121.9 254.35	340.2



EMERG SAFE ALT 100 NM 13,600





CATEGORY	A	B	C	D
S-26	280-1		325 (400-1)	
CIRCLING	420-1 462 (500-1)		420-1½ 462 (500-1½)	520-2 562 (600-2)

HIRL Rwys 8-26, 12-30

VOR/DME or TACAN RWY 30

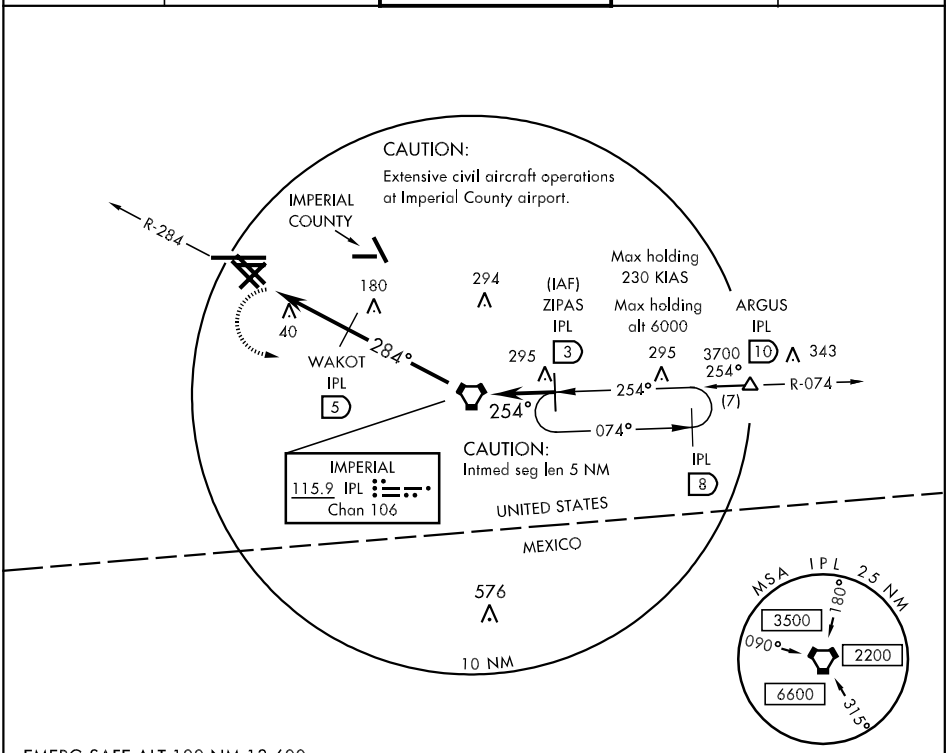
VORTAC IPL	APCH CRS	Rwy Idg	6824
115.9	284°	TDZE	-42
Chan 106		Arpt Elev	-42

AL-472 [USN]

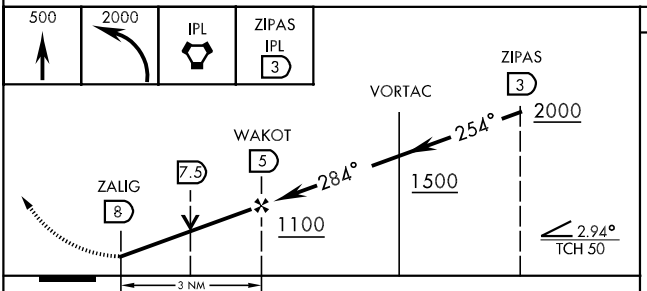
EL CENTRO NAF (KNJK)

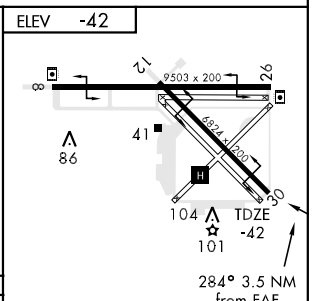
MISSED APPROACH: Climb to 500, then climbing left turn to 2000, direct IPL VORTAC, then via IPL R-074 to ZIPAS and hold.

ATIS ★	LOS ANGELS CENTER	EL CENTRO TOWER ★	GND CON	CLNC DEL
269.275	128.6 291.7	119.1 360.2	121.9 254.35	340.2



EMERG SAFE ALT 100 NM 13,600





CATEGORY	A	B	C	D
S-30	300-1 342 (400-1)			300-1¼ 342 (400-1¼)
CIRCLING	420-1 462 (500-1)		420-1½ 462 (500-1½)	520-2 562 (600-2)

HIRL Rwys 8-26, 12-30

FAF to MAP 3.0 NM

Knots	60	90	120	150	180
Min:Sec	3:00	2:00	1:30	1:12	1:00

09071

AIRPORT DIAGRAM

AL-5639 (FAA)

EL MONTE (EMT)
EL MONTE, CALIFORNIA

ATIS
118.75
EL MONTE TOWER★
121.2
GND CON
125.9

D

338

FIELD ELEV 296

34°05.5′N

19

192.2°

RWY 1-19
S12.5

HANGARS

CONTROL TOWER
364

HANGARS

VAR 13.2°E

JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°W

3995 X 75

0.4% UP

354

34°05′N

012.2°

HANGARS

ELEV 282

1

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

118°02.5′W

118°02′W

SW-3, 14 JAN 2010 to 11 FEB 2010

NDB EMT	APP CRS	Rwy Idg	N/A
359	258°	TDZE	N/A
		Apt Elev	296

NDB or GPS-C
EL MONTE (EMT)

When local altimeter setting not received, use Ontario Intl altimeter setting.

MISSED APPROACH: Climbing left turn to 2500 via heading 070° and PDZ R-278 to ADAMM Int, then continue climb to 4000 to PDZ VORTAC.

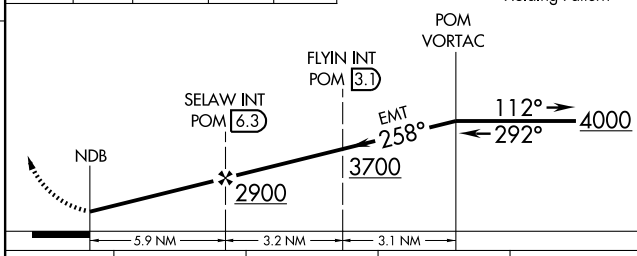
ATIS	SOCAL APP CON	EL MONTE TOWER ★	GND CON	UNICOM
118.75	125.5 349.0	121.2 (CTAF) L	125.9	122.95

EL MONTE 359 EMT
SELAW INT POM 6.3
2900 via EMT 258° (3.2)
FLYIN INT POM 3.1
3700 via EMT 258° (3.1)
IAF POMONA 110.4 POM Chan 41
IAF PARADISE 112.2 PDZ Chan 59
POM R-257
EMT 258°
292° 1 min 112°
R-112
R-278
R-180
R-015
R-006
ADAMM PDZ 15.5
4000 NoPT 292° (16)
4000 NoPT 292° (19)
115.7 SLI Chan 104
115.7 SLI Chan 104
10 NM
(IAF) PRADO POM 9.3
MSA EMT 25 NM
11200
090° 270°
5200

ELEV 296 D
3995 X 75
364
354
258° to NDB
313 ±
REIL Rwy 19 L
MIRL Rwy 1-19 L

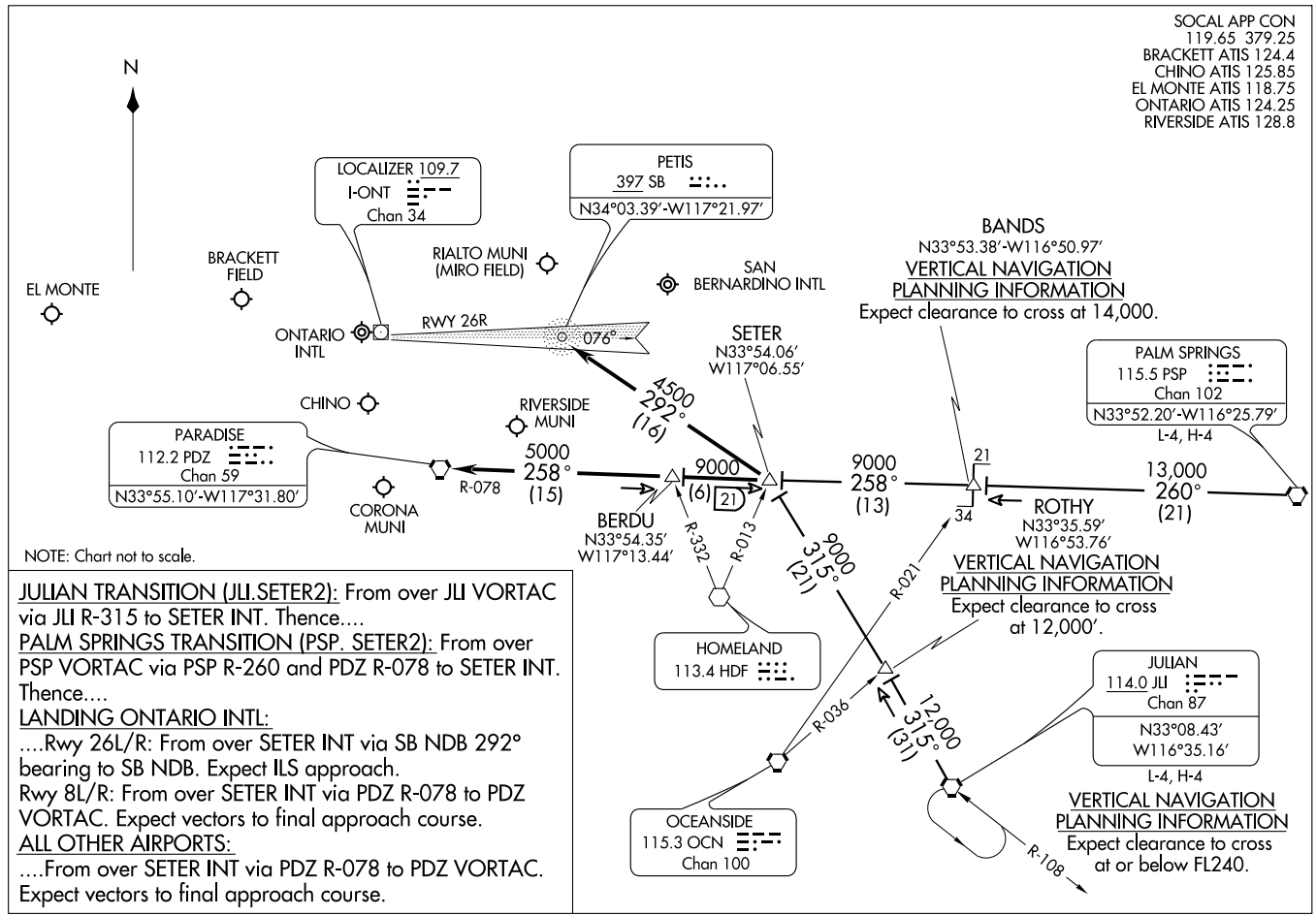
2500 070°	PDZ R-278	ADAMM	4000	PDZ 112.2

One Minute Holding Pattern



CATEGORY	A	B	C	D
CIRCLING	1200-1¼ 904 (1000-1¼)		NA	
ONTARIO INTL ALTIMETER SETTING MINIMUMS				
CIRCLING	1340-1¼ 1044 (1100-1¼)	1340-1½ 1044 (1100-1½)	NA	

SW-3, 14 JAN 2010 to 11 FEB 2010



NOTE: Chart not to scale.

JULIAN TRANSITION (JLI.SETER2): From over JLI VORTAC via JLI R-315 to SETER INT. Thence....

PALM SPRINGS TRANSITION (PSP. SETER2): From over PSP VORTAC via PSP R-260 and PDZ R-078 to SETER INT. Thence....

LANDING ONTARIO INTL:

....Rwy 26L/R: From over SETER INT via SB NDB 292° bearing to SB NDB. Expect ILS approach.

Rwy 8L/R: From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ALL OTHER AIRPORTS:

....From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ST-965 (FAA)

ONTARIO, CALIFORNIA

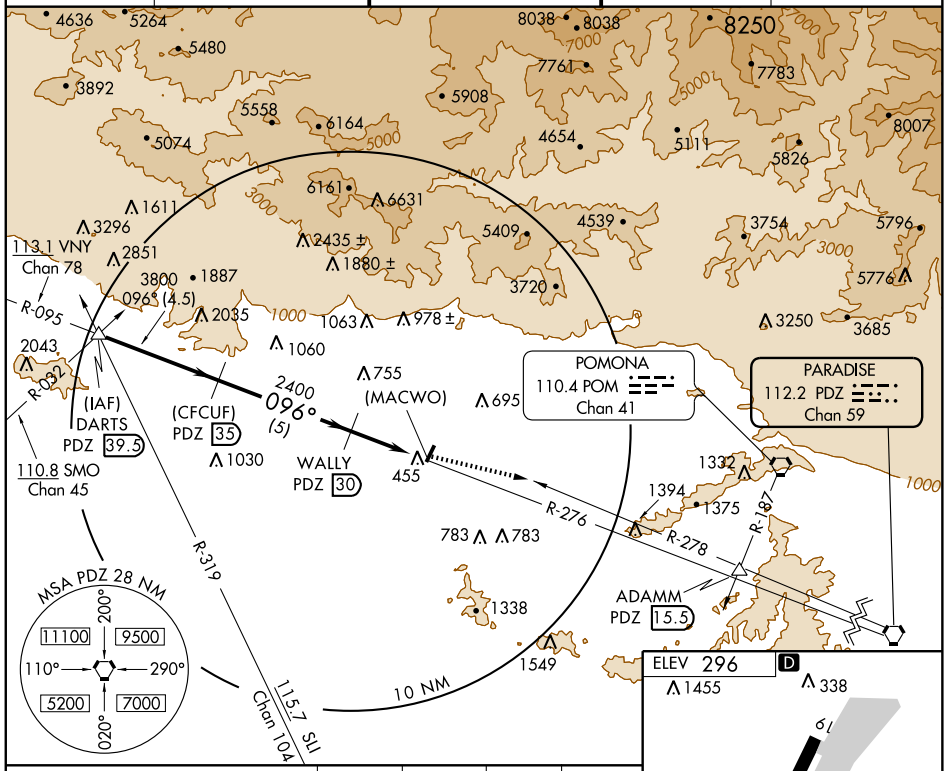
VORTAC PDZ	APP CRS	Rwy Idg	N/A
112.2	096°	TDZE	N/A
Chan 59		Apt Elev	296

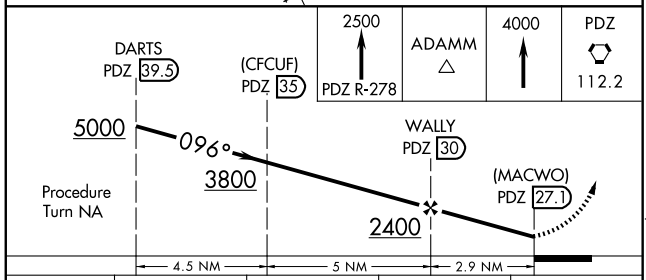
VOR/DME or GPS-B
EL MONTE (EMT)

When local altimeter setting not received, use Ontario Intl altimeter setting.

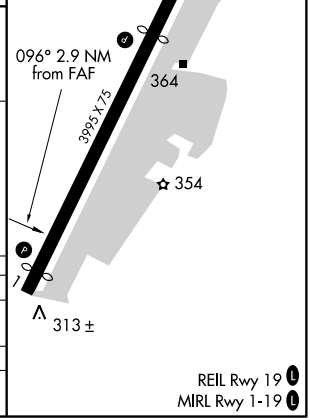
MISSED APPROACH: Climb to 2500 via PDZ R-278 to ADAMM Int, then continue climb to 4000 to PDZ VORTAC.

ATIS	SOCAL APP CON	EL MONTE TOWER ★	GND CON	UNICOM
118.75	125.5 349.0	121.2 (CTAF) L	125.9	122.95





CATEGORY	A	B	C	D
CIRCLING	1340-1¼ 1044 (1100-1¼)	1340-1½ 1044 (1100-1½)	NA	
ONTARIO INTL ALTIMETER SETTING MINIMUMS				
CIRCLING	1500-1¼ 1204 (1300-1¼)	1500-1½ 1204 (1300-1½)	NA	



SW-3, 14 JAN 2010 to 11 FEB 2010

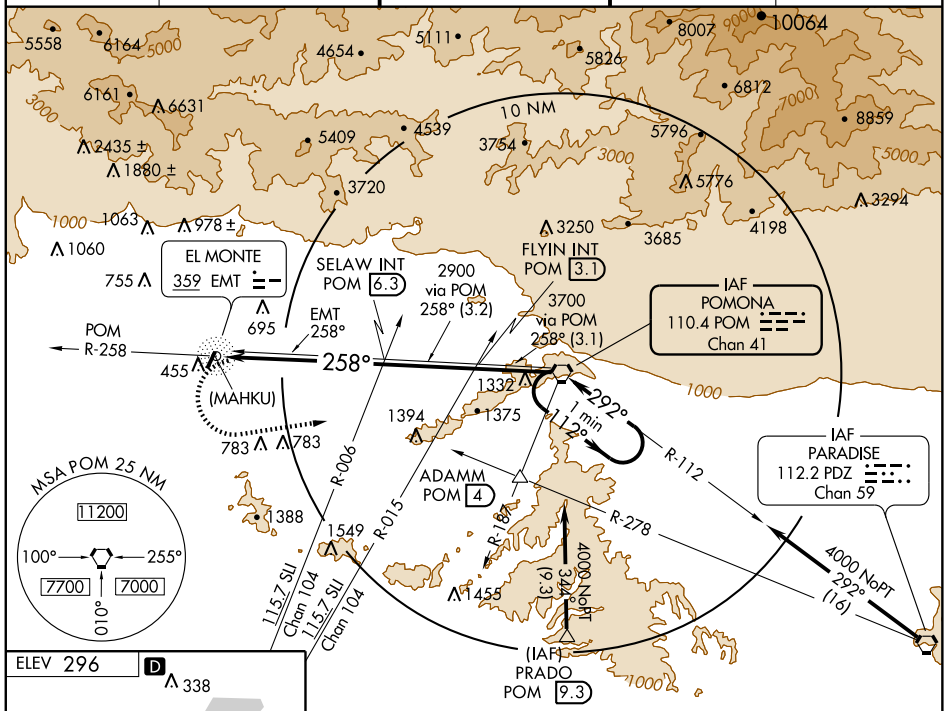
VORTAC POM 110.4 Chan 41	APP CRS 258°	Rwy Idg N/A TDZE N/A Apt Elev 296

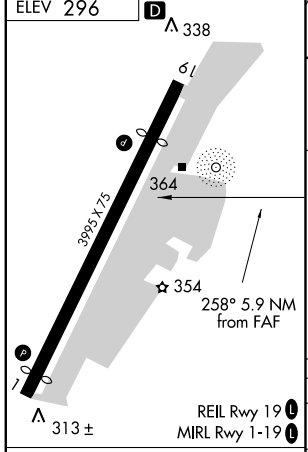
VOR or GPS-A
EL MONTE (EMT)

When local altimeter setting not received, use Ontario Intl altimeter setting.

MISSED APPROACH: Climbing left turn to 2500 via heading 070° and PDZ R-278 to ADAMM Int, then continue climb to 4000 to PDZ VORTAC.

ATIS 118.75	SOCAL APP CON 125.5 349.0	EL MONTE TOWER ★ 121.2 (CTAF) L	GND CON 125.9	UNICOM 122.95

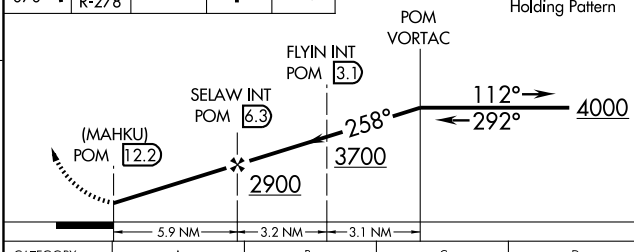




FAF to MAP 5.9 NM					
Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

2500 070°	PDZ R-278	ADAMM △	4000	PDZ 112.2

One Minute Holding Pattern

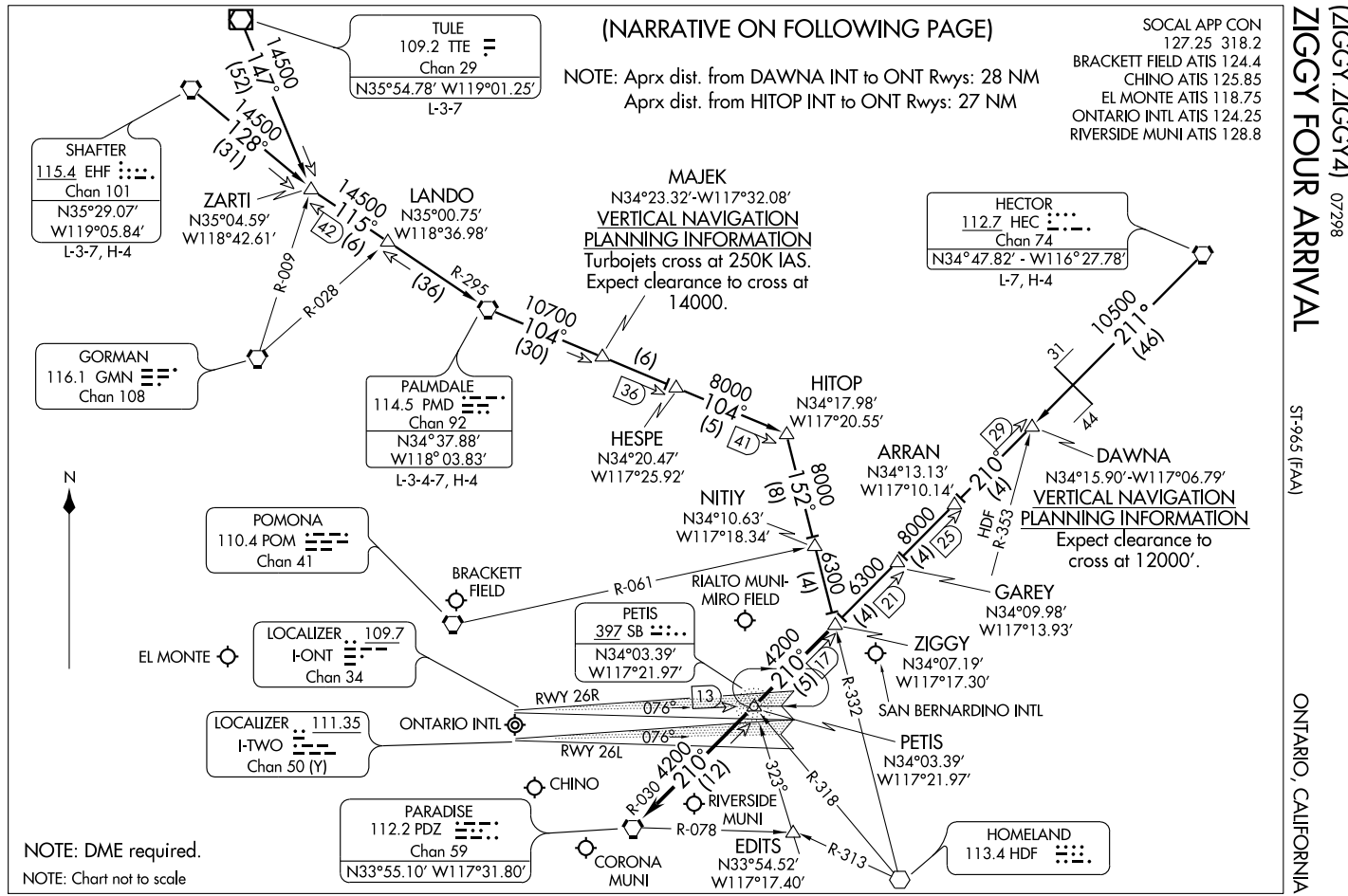


CATEGORY	A	B	C	D
CIRCLING	1260-1¼ 964 (1000-1¼)	1260-1½ 964 (1000-1½)	NA	

ONTARIO INTL ALTIMETER SETTING MINIMUMS

CIRCLING	1400-1¼ 1104 (1200-1¼)	1400-1½ 1104 (1200-1½)	NA	

SW-3, 14 JAN 2010 to 11 FEB 2010


(NARRATIVE ON FOLLOWING PAGE)
NOTE: Aprx dist. from DAWNA INT to ONT Rwys: 28 NM
Aprx dist. from HITOP INT to ONT Rwys: 27 NM
SOCAL APP CON
127.25 318.2
BRACKETT FIELD ATIS 124.4
CHINO ATIS 125.85
EL MONTE ATIS 118.75
ONTARIO INTL ATIS 124.25
RIVERSIDE MUNI ATIS 128.8
ZIGGY FOUR ARRIVAL
(ZIGGY.ZIGGY4) 07298
ST-965 (FAA)
ONTARIO, CALIFORNIA
TULE
109.2 TTE
Chan 29
N35°54.78' W119°01.25'
L-3-7
SHAFTER
115.4 EHF
Chan 101
N35°29.07'
W119°05.84'
L-3-7, H-4
ZARTI
N35°04.59'
W118°42.61'
LANDO
N35°00.75'
W118°36.98'
MAJEK
N34°23.32'-W117°32.08'
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojets cross at 250K IAS.
Expect clearance to cross at
14000.
HECTOR
112.7 HEC
Chan 74
N34°47.82' - W116°27.78'
L-7, H-4
GORMAN
116.1 GMN
Chan 108
PALMDALE
114.5 PMD
Chan 92
N34°37.88'
W118°03.83'
L-3-4-7, H-4
HESPE
N34°20.47'
W117°25.92'
HITOP
N34°17.98'
W117°20.55'
ARRAN
N34°13.13'
W117°10.14'
DAWNA
N34°15.90'-W117°06.79'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance to
cross at 12000'.
NITIY
N34°10.63'
W117°18.34'
POMONA
110.4 POM
Chan 41
BRACKETT
FIELD
RIALTO MUNI-
MIRO FIELD
GAREY
N34°09.98'
W117°13.93'
PETIS
397 SB
N34°03.39'
W117°21.97'
ZIGGY
N34°07.19'
W117°17.30'
EL MONTE
LOCALIZER 109.7
I-ONT
Chan 34
SAN BERNARDINO INTL
RWY 26R
RWY 26L
ONTARIO INTL
LOCALIZER 111.35
I-TWO
Chan 50 (Y)
PETIS
N34°03.39'
W117°21.97'
CHINO
PARADISE
112.2 PDZ
Chan 59
N33°55.10' W117°31.80'
RIVERSIDE
MUNI
CORONA
MUNI
EDITS
N33°54.52'
W117°17.40'
HOMELAND
113.4 HDF
NOTE: DME required.
NOTE: Chart not to scale
N

ZIGGY FOUR ARRIVAL

ARRIVAL ROUTE DESCRIPTION

HECTOR TRANSITION (HEC.ZIGGY4): From over HEC VORTAC via HEC R-211 and PDZ R-030 to ZIGGY INT. Thence . . . .

PALMDALE TRANSITION (PMD.ZIGGY4): From over PMD VORTAC via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

SHAFTER TRANSITION (EHF.ZIGGY4): From over EHF VORTAC via EHF R-128 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

TULE TRANSITION (TTE.ZIGGY4): From over TTE VOR/DME via TTE R-147 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

LANDING ONTARIO INTL:

. . . . RWY 8L/R: From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

. . . . RWY 26 L/R: From over ZIGGY INT via direct PETIS NDB or PDZ R-030 to PETIS INT; expect radar vectors for ILS approach.

ALL OTHER AIRPORTS:

. . . . From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

LOST COMMUNICATIONS: For Rialto, California, NDB-A approach, proceed from PDZ VORTAC via PDZ R-078 to EDITS INT, maintain 4200'.

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	N/A
020°	TDZE	N/A
	Apt Elev	7

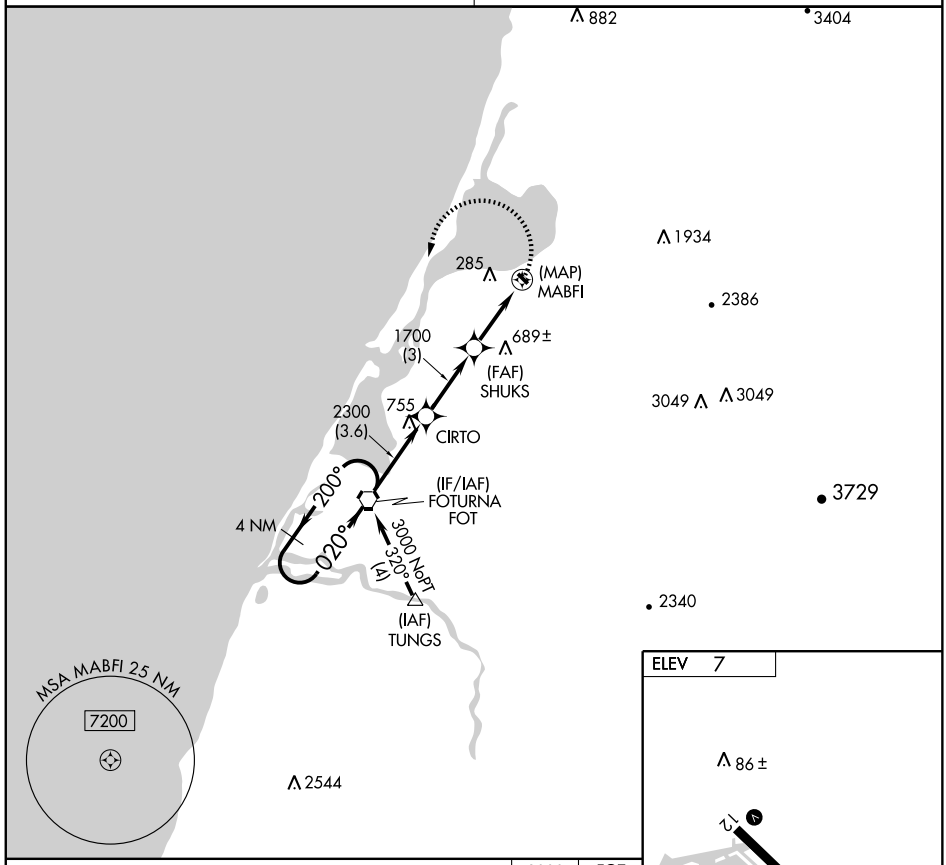
RNAV (GPS)-B

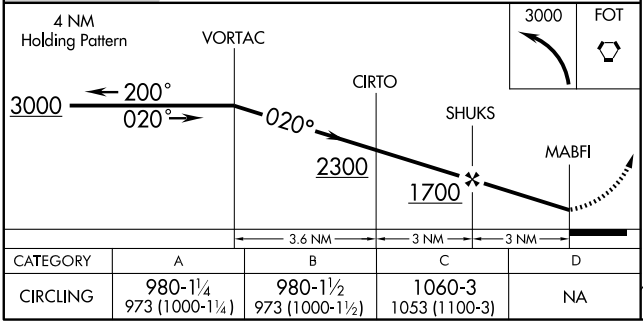
EUREKA/MURRAY FIELD (EKA)

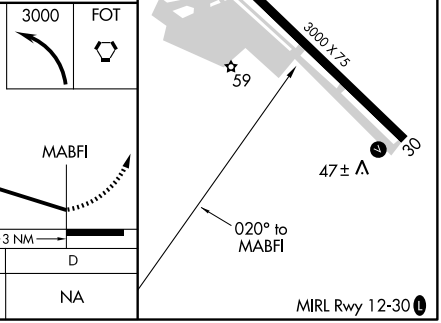
DME/DME RNP -0.3 NA.
Use Arcata altimeter setting when not received, use Crescent City altimeter setting and increase all MDA 100 feet.

MISSED APPROACH: Climbing left turn to 3000 direct FOT VORTAC and hold.

SEATTLE CENTER	UNICOM
124.85 306.3	122.7 (CTAF)







CATEGORY	A	B	C	D
CIRCLING	980-1¼ 973 (1000-1¼)	980-1½ 973 (1000-1½)	1060-3 1053 (1100-3)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3000
115°	TDZE	7
	Apt Elev	7

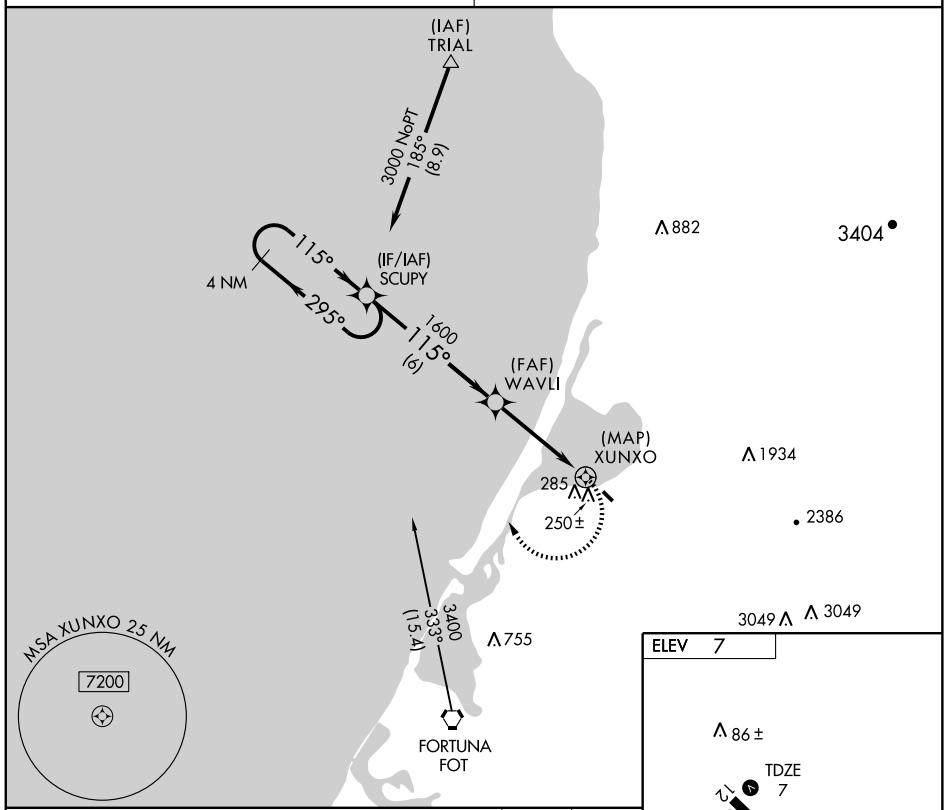
RNAV (GPS) RWY 12

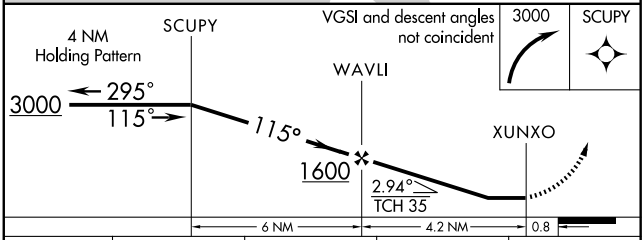
EUREKA/MURRAY FIELD (EKA)

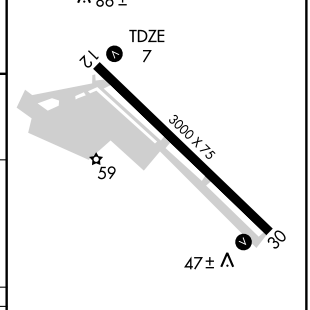
DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA. Use Arcata altimeter setting, when not received, use Crescent City altimeter setting and increase all MDA 100 feet and increase LNAV Cat C and circling Cat B visibility ¼ mile.

MISSED APPROACH: Climbing right turn to 3000 direct SCUPY and hold.

SEATTLE CENTER	UNICOM
124.85 306.3	122.7 (CTAF)







CATEGORY	A	B	C	D
LNAV MDA	760-1 753 (800-1)	760-1¼ 753 (800-1¼)	760-2¼ 753 (800-2¼)	NA
CIRCLING	760-1 753 (800-1)	880-1¼ 873 (900-1¼)	1060-3 1053 (1100-3)	NA

MIRL Rwy 12-30 (L)

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC FOT	APP CRS	Rwy Idg	N/A
114.0	016°	TDZE	N/A
Chan 87		Apt Elev	7

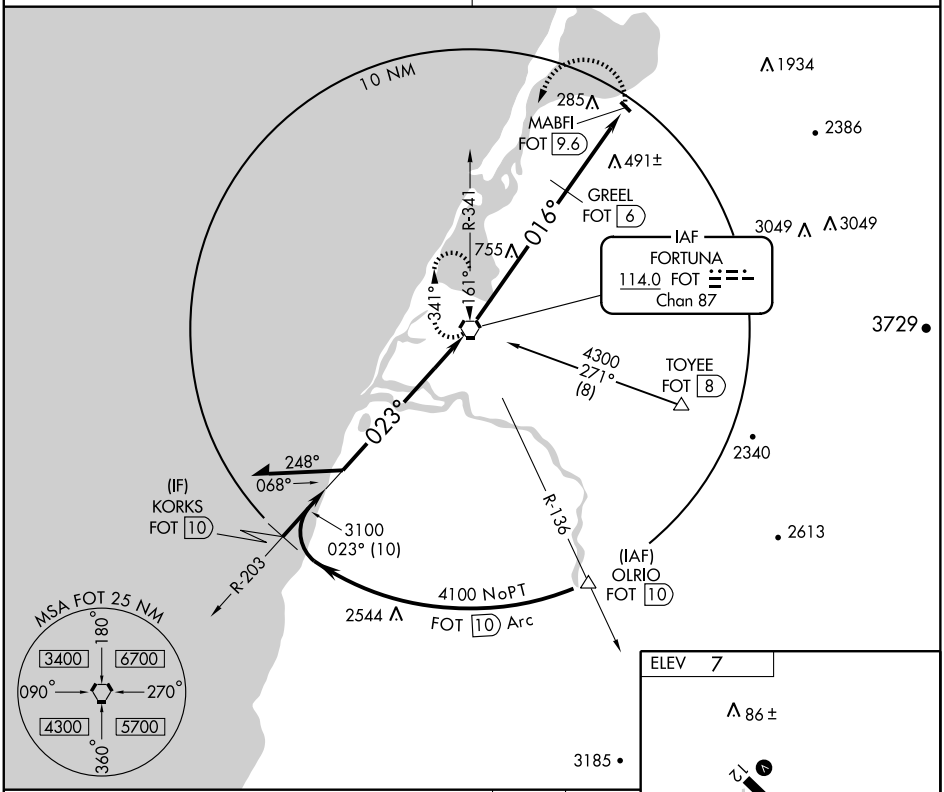
VOR-A

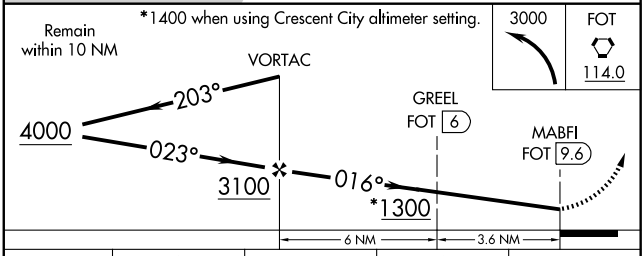
EUREKA/MURRAY FIELD (EKA)

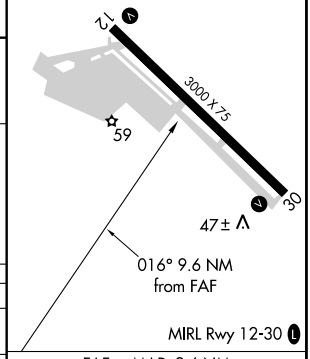
Use Arcata altimeter setting; when not received, use Crescent City altimeter setting and increase all MDA 100 feet and increase GREEL fix minimums visibility Cats. A and B ¼ mile.

MISSED APPROACH: Climbing left turn to 3000 direct FOT VORTAC and hold.

SEATTLE CENTER	UNICOM
124.85 306.3	122.7 (CTAF)





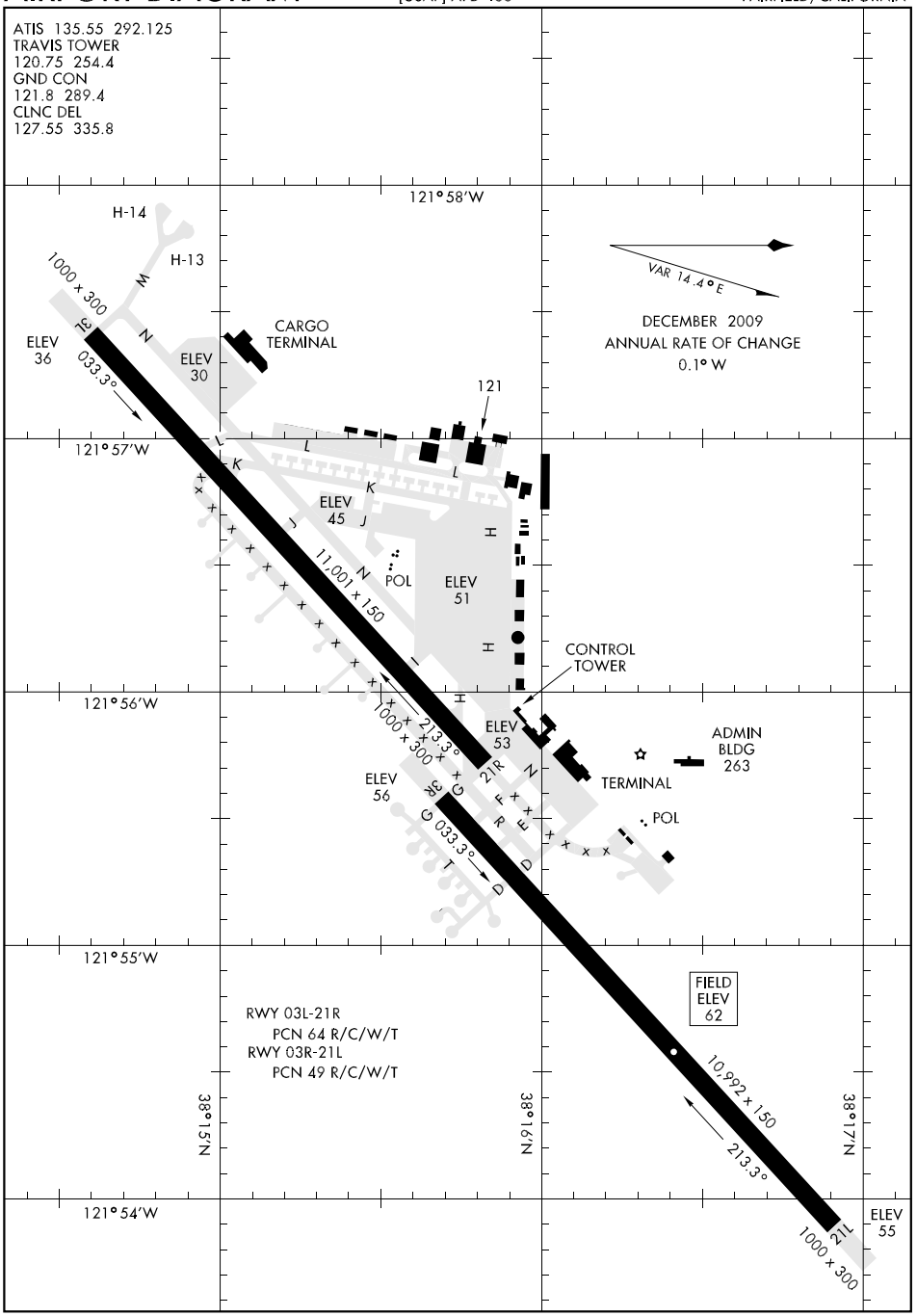


CATEGORY	A	B	C	D
CIRCLING	1300-1¼ 1293 (1300-1¼)	1300-1½ 1293 (1300-1½)	1300-3 1293 (1300-3)	NA
GREEL FIX MINIMUMS				
CIRCLING	860-1 853 (900-1)	880-1¼ 873 (900-1¼)	1060-3 1053 (1100-3)	NA

FAF to MAP 9.6 NM

Knots	60	90	120	150	180
Min:Sec	9:36	6:24	4:48	3:50	3:12

SW-2, 14 JAN 2010 to 11 FEB 2010


ATIS 135.55 292.125
TRAVIS TOWER
120.75 254.4
GND CON
121.8 289.4
CLNC DEL
127.55 335.8
121°58'W
H-14
H-13
1000 x 300
03L
033.3°
ELEV 36
CARGO TERMINAL
ELEV 30
121
VAR 14.4°E
DECEMBER 2009
ANNUAL RATE OF CHANGE
0.1° W
121°57'W
ELEV 45
POL
ELEV 51
11,001 x 150
CONTROL TOWER
121°56'W
1000 x 300
213.3°
21R
ELEV 53
ADMIN BLDG 263
TERMINAL
ELEV 56
03R
033.3°
POL
121°55'W
RWY 03L-21R
PCN 64 R/C/W/T
RWY 03R-21L
PCN 49 R/C/W/T
FIELD ELEV 62
10,992 x 150
213.3°
38°15'N
38°16'N
38°17'N
121°54'W
21L
1000 x 300
ELEV 55

ILS or LOC RWY 3L

LOC I-TXV	APCH CRS	Rwy ldg 11,001 TDZE 36 Arpt Elev 62
108.35	032°	

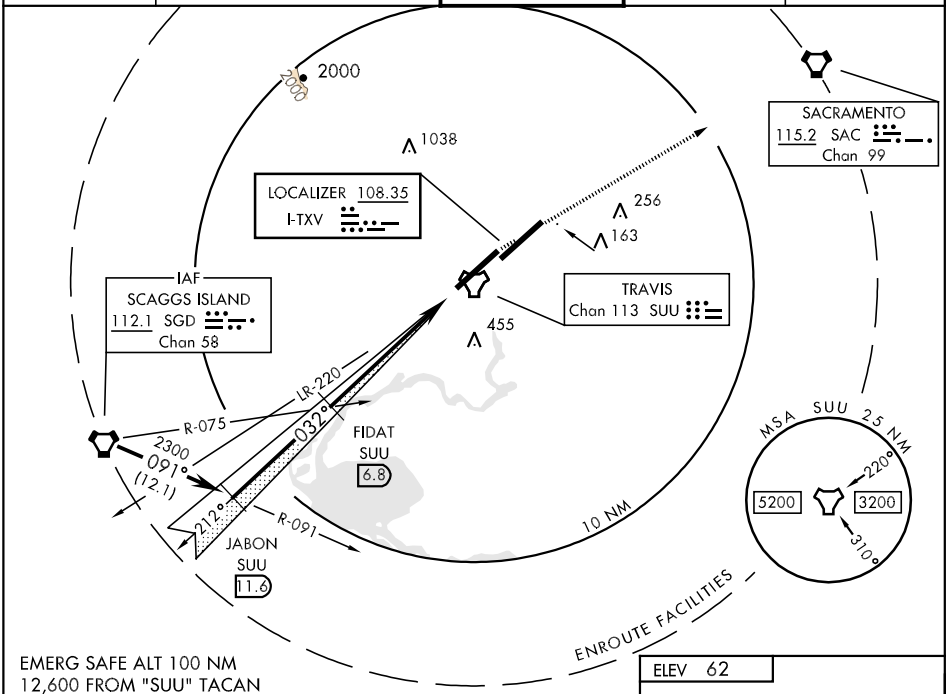
AL-488 [USAF]

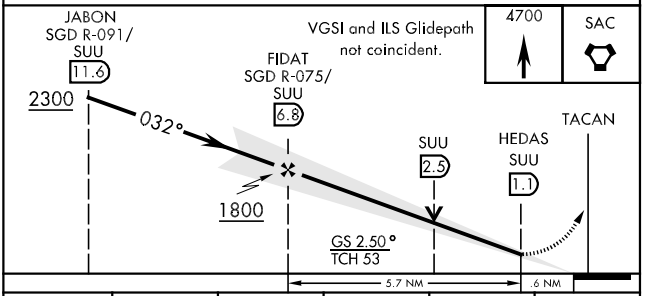
TRAVIS AFB (KSUU)

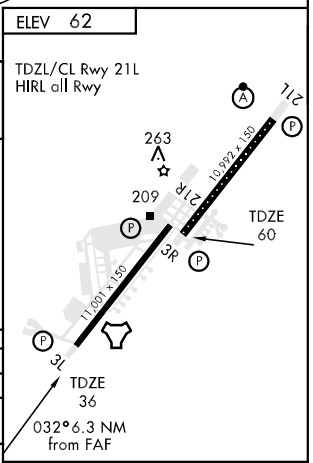
* Circling not authorized NW of Rwy 3L-21R.
** VDP NA for sidestep maneuver to Rwy 3R.

MISSED APPROACH: Climb to 4700 direct SAC VORTAC. Prior to reaching SAC expect further clearance from ATC.

ATIS	TRAVIS APP CON	TRAVIS TOWER	GND CON	CLNC DEL
135.55 292.125	119.9 (S) 126.6 (N) 291.0	120.75 254.4	121.8 289.4	127.55 335.8







CATEGORY	A	B	C	D	E
S-ILS 3L	236/40		200	(200-¾)	
S-LOC 3L	620/50	584 (600-1)	620-1½ 584 (600-1½)	620-1¾ 584 (600-1¾)	620-2 584 (600-2)
SIDESTEP ** RWY 3R	760/50	700 (700-1)	760-2 700 (700-2)	760-2¼ 700 (700-2¼)	760-2½ 700 (700-2½)
CIRCLING *	620-1	558 (600-1)	620-1½ 558 (600-1½)	800-2¼ 738 (800-2¼)	1440-3 1378(1400-3)

FAF to MAP 5.7 NM

Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54

SW-2, 14 JAN 2010 to 11 FEB 2010

ILS or LOC RWY 21L

LOC I-SUU 110.1	APCH CRS 212°	Rwy ldg 10,992 TDZE 58 Arpt Elev 62	AL-488 [USAF]	TRAVIS AFB (KSUU)

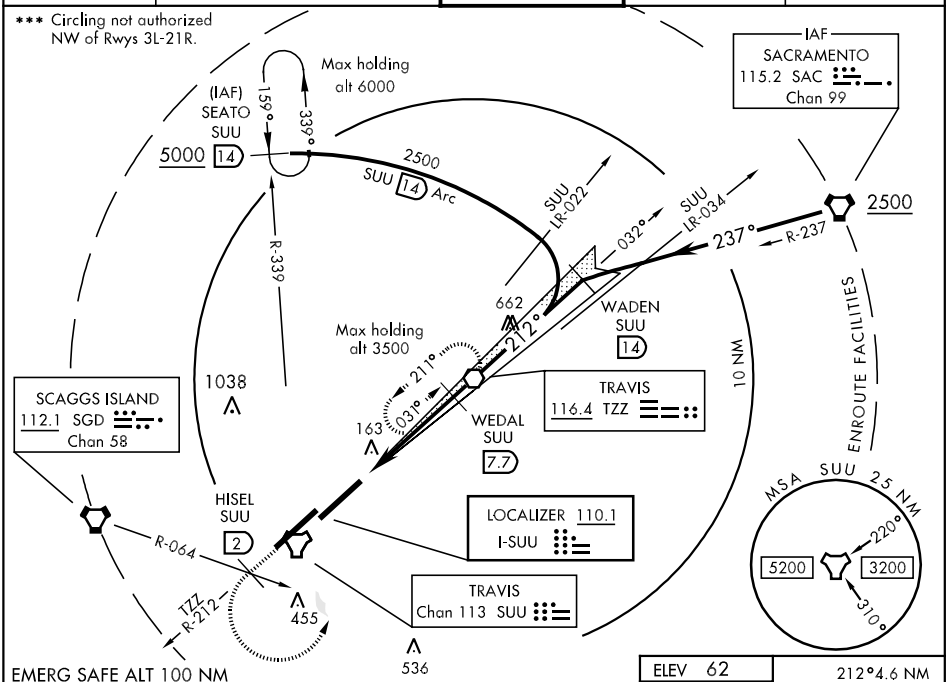
* When ALS inop, increase RVR to 40 and vis to ¾ mile. When TDZL/CL inop, increase CAT AB RVR to 24.
** When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C RVR to 60 and vis to 1¼ mile, and CAT DE vis to 1½ mile.

ALSF-2

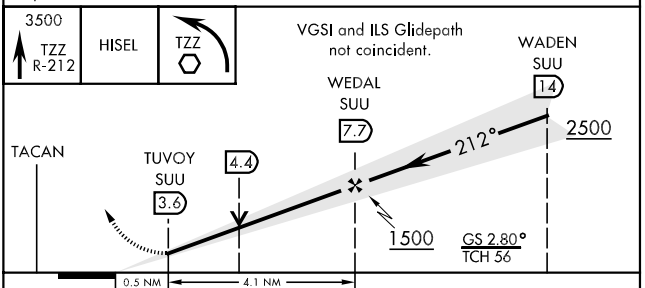
MISSED APPROACH: Climb to 3500 via TZZ VOR R-212 to HISEL, then turn left direct TZZ and hold, continue climb in holding to 3500.

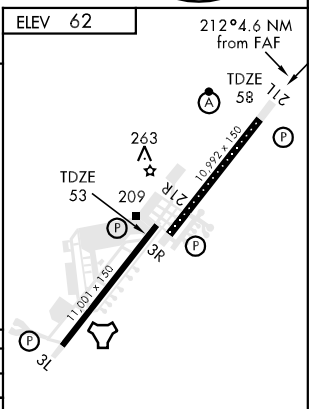
ATIS	TRAVIS APP CON	TRAVIS TOWER	GND CON	CLNC DEL
135.55 292.125	119.9 (S) 126.6 (N) 291.0	120.75 254.4	121.8 289.4	127.55 335.8

*** Circling not authorized NW of Rwys 3L-21R.



EMERG SAFE ALT 100 NM
12,600 FROM "SUU" TACAN





TDZL/CL Rwy 21L
HIRL all Rwy

CATEGORY	A	B	C	D	E
S-ILS 21L *	258/18 200 (200-½)		258/24 200 (200-½)		
S-LOC 21L **	500/24 442 (500-½)		500/40 442 (500-¾)	500/50 442 (500-1)	
SIDESTEP RWY 21R	520-2¾		467 (500-2¾)		
CIRCLING ***	520-1 458 (500-1)		520-1½ 458 (500-1½)	800-2¼ 738 (800-2¼)	1440-3 1378(1400-3)

FAF to MAP 4.1 NM

Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22

SW-2, 14 JAN 2010 to 11 FEB 2010

ILS or LOC RWY 21R

LOC I-MZP	APCH CRS	Rwy ldg / TDZE / Arpt Elev
108.35	212°	11,001 / 53 / 62

AL-488 [USAF]

TRAVIS AFB (KSUU)

* Circling not authorized NW of Rwys 3L-21R.

MISSED APPROACH: Climb to 3200 direct SGD VORTAC. Prior to reaching SGD expect further clearance from ATC.

ATIS	TRAVIS APP CON	TRAVIS TOWER	GND CON	CLNC DEL
135.55 292.125	119.9 (S) 126.6 (N) 291.0	120.75 254.4	121.8 289.4	127.55 335.8

RADAR or DME REQUIRED

Max holding alt 6000

(IAF) SEATO SUU 14

IAF SACRAMENTO 115.2 SAC Chan 99

5000

159° 339°

2500 SUU 14 ARC

309

2431

1214

2939

2000

2392

LR-033 2500 238° (8.7)

R-238

2500

LR-021

032°

662

ZEBAN SUU 14

ZIMIL SUU 6.6

212°

R-339

197

LOCALIZER 108.35 I-MZP

SCAGGS ISLAND 112.1 SGD Chan 58

TRAVIS Chan 113 SUU

10 NM

MSA SUU 25 NM

220°

5200

3200

310°

EMERG SAFE ALT 100 NM
12,600 FROM "SUU" TACAN

3200 SGD

VGSI and ILS Glidepath not coincident

ZEBAN Intcp LOC 14

ZIMIL RADAR 6.6

TACAN

ZAMOS 1.4

212° 2500

1800

3.00° TCH 49

0.1 NM 5.2 NM

ELEV 62

212° 5.3 NM from FAF

TDZE 53

263

209

252

10,992 x 150

11,001 x 150

TDZL/CL Rwy 21L HIRL all Rwy

CATEGORY	A	B	C	D	E
S-ILS 21R	303/50 250 (300-1)				
S-LOC 21R	500/50 447 (500-1)		500/60 447 (500-1¼)	500-1½ 447 (500-1½)	
CIRCLING *	500-1 438 (500-1)	520-1 458 (500-1)	520-1½ 458 (500-1½)	800-2 ¼ 738 (800-2¼)	1440-3 1378(1400-3)

FAF to MAP 5.2 NM

Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

SW-2, 14 JAN 2010 to 11 FEB 2010

ILS RWY 21L (CAT II)

TRAVIS AFB (KSUU)

LOC I-SUU	APCH CRS	Rwy ldg 10,992 TDZE 58 Arpt Elev 62
110.1	212°	AL-488 [USAF]

ALSF-2

MISSED APPROACH: Climb to 3500 via TZZ VOR R-212 to HISEL, then turn left direct TZZ and hold, continue climb in holding to 3500.

ATIS	TRAVIS APP CON	TRAVIS TOWER	GND CON	CLNC DEL
135.55 292.125	119.9 (S) 126.6 (N) 291.0	120.75 254.4	121.8 289.4	127.55 335.8

CATEGORY II ILS SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

IAF SACRAMENTO 115.2 SAC Chan 99

(IAF) SEATO SUU 5000 14

Max holding alt 6000

159° 339°

2500 SUU 14 Arc

SUU LR-022

SUU LR-034

032° 237° R-237

2500

R-339

WADEN SUU 14

662

212°

Max holding alt 3500

211°

037°

1038

SCAGGS ISLAND 112.1 SGD Chan 58

IM 163

WEDAL SUU 7.7

TRAVIS 116.4 TZZ

10 NM

ENROUTE FACILITIES

HISEL SUU 2

R-064

LOCALIZER 110.1 I-SUU

TZZ R-212

455

TRAVIS Chan 113 SUU

536

MSA SUU 25 NM

220°

5200 3200

310°

EMERG SAFE ALT 100 NM
12,600 FROM "SUU" TACAN

ELEV 62

212° 4.6 NM from 7.7 DME

TDZE 58

263

209

10,992 x 150

21R

3R

11,001 x 150

3L

3500 TZZ R-212 SUU 2 TZZ

VGSI and ILS Glidepath not coincident.

WADEN 14

WEDAL 7.7

2500

212°

TACAN

IM

DH (RA 114)

58 MSL

55 MSL

1500

GS 2.80°

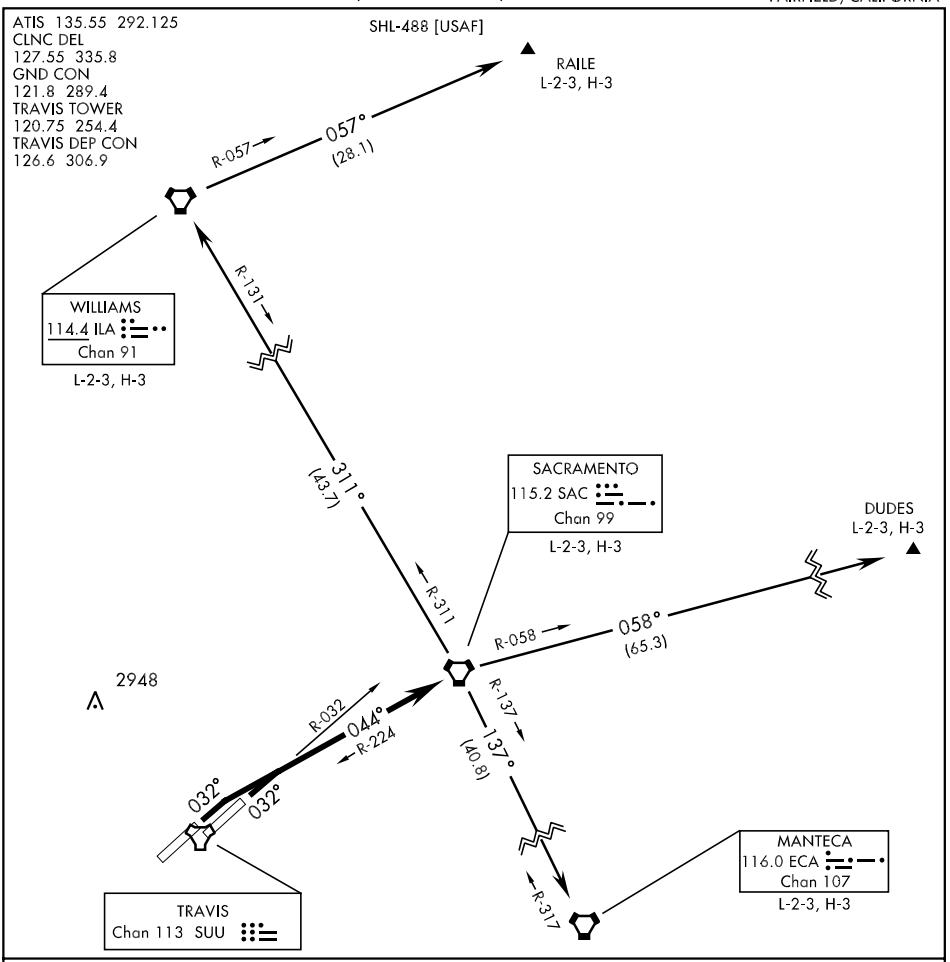
TCH 56

1132' 1009' 165' 4.4 NM 6.3 NM

CATEGORY	A	B	C	D	E
S-ILS 21L	160/12	102	(RA 114)		

TDZL/CL Rwy 21L
HIRL all Rwy

SW-2, 14 JAN 2010 to 11 FEB 2010



SW-2, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3L/R: Climb via heading 032° to intercept and fly SAC VORTAC R-224 to SAC. Then via assigned transition.

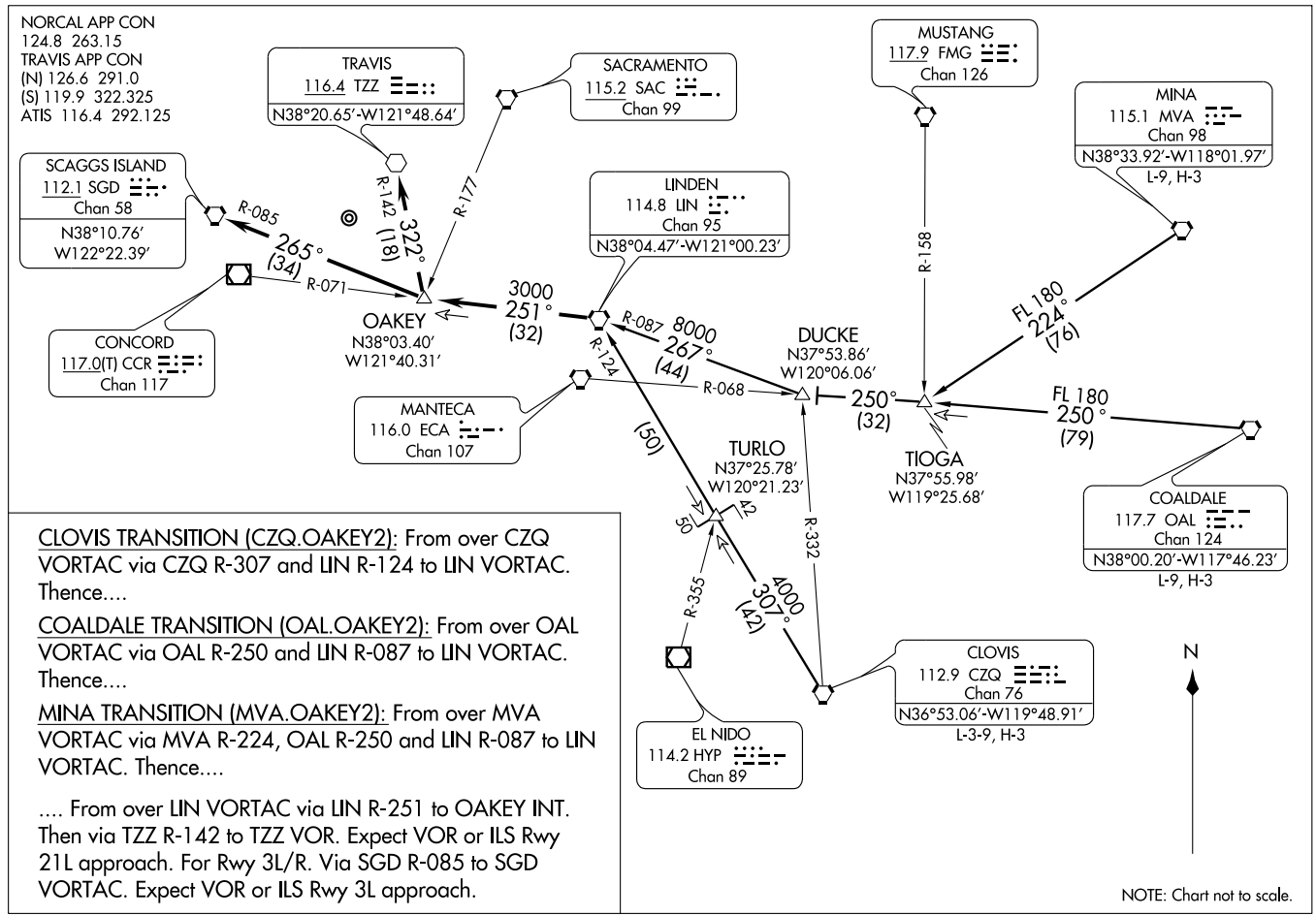
DUDES TRANSITION (MENTO1• DUDES): Turn right intercept and fly SAC R-058 to 65.3 DME (DUDES).

MANTECA TRANSITION (MENTO1•ECA): Turn right intercept and fly SAC R-137 to ECA VORTAC R-317 to ECA.

RAILE TRANSITION (MENTO1•RAILE): Turn left intercept and fly SAC R-311 to ILA VORTAC R-131 to ILA then turn right intercept and fly ILA R-057 to 28.1 DME (RAILE).

WILLIAMS TRANSITION (MENTO1•ILA): Turn left intercept and fly SAC R-311 to ILA R-131 to ILA.

OAKEY TWO ARRIVAL (LIN.OAKEY2) 09127



CLOVIS TRANSITION (CZQ.OAKEY2): From over CZQ VORTAC via CZQ R-307 and LIN R-124 to LIN VORTAC. Thence....

COALDALE TRANSITION (OAL.OAKEY2): From over OAL VORTAC via OAL R-250 and LIN R-087 to LIN VORTAC. Thence....

MINA TRANSITION (MVA.OAKEY2): From over MVA VORTAC via MVA R-224, OAL R-250 and LIN R-087 to LIN VORTAC. Thence....

.... From over LIN VORTAC via LIN R-251 to OAKEY INT. Then via TZZ R-142 to TZZ VOR. Expect VOR or ILS Rwy 21L approach. For Rwy 3L/R. Via SGD R-085 to SGD VORTAC. Expect VOR or ILS Rwy 3L approach.

ST-488 (FAA)

TRAVIS AFB
FAIRFIELD, CALIFORNIA

RNAV (GPS) RWY 3L

APCH CRS	Rwy ldg	11,001
032°	TDZE	36
	Arpt Elev	62

AL-488 [USAF]

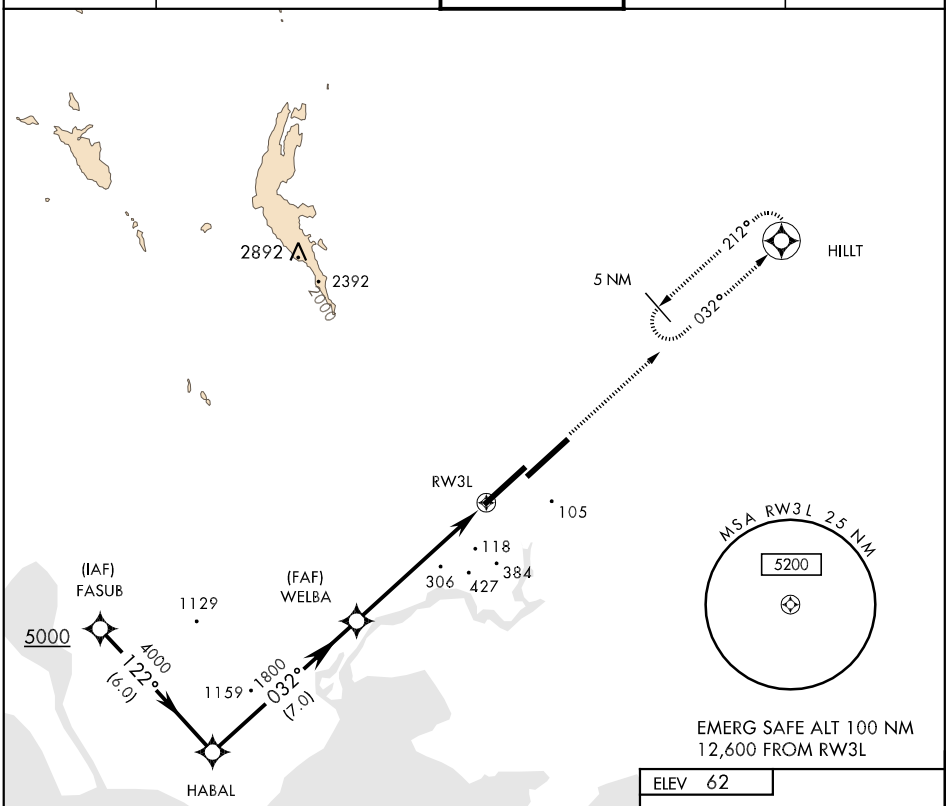
TRAVIS AFB (KSUU)

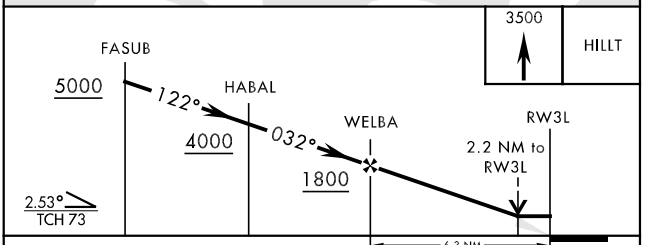
▼ * Circling not authorized NW of Rwys 3L-21R.

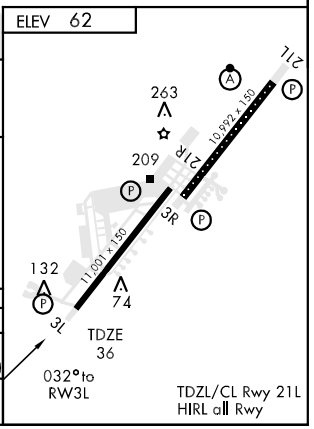
DME/DME RNP-0.3 NA

MISSED APPROACH: Climbing straight ahead to 3500 direct HILLT and hold.

ATIS	TRAVIS APP CON	TRAVIS TOWER	GND CON	CLNC DEL
135.55 292.125	119.9 (S) 126.6 (N) 291.0	120.75 254.4	121.8 289.4	127.55 335.8







CATEGORY	A	B	C	D	E
LNAV MDA	680/50 644 (700-1)		680-1¾ 644 (700-1¾)	680-2 644 (700-2)	680-2¼ 644 (700-2¼)
CIRCLING *	680-1 618 (700-1)		680-1¾ 618 (700-1¾)	800-2¼ 738 (800-2¼)	1440-3 1378(1400-3)

SW-2, 14 JAN 2010 to 11 FEB 2010

RNAV (GPS) RWY 21L

APCH CRS	Rwy ldg	10,992
212°	TDZE	58
	Arpt Elev	62

AL-488 [USAF]

TRAVIS AFB (KSUU)

* When ALS inop, increase CAT A RVR to 50 and vis to 1 mile, CAT B RVR to 60 and vis to 1¼ miles, CAT C vis to 2¼ miles, CAT D vis to 2½ miles, and CAT E vis to 2¾ miles.

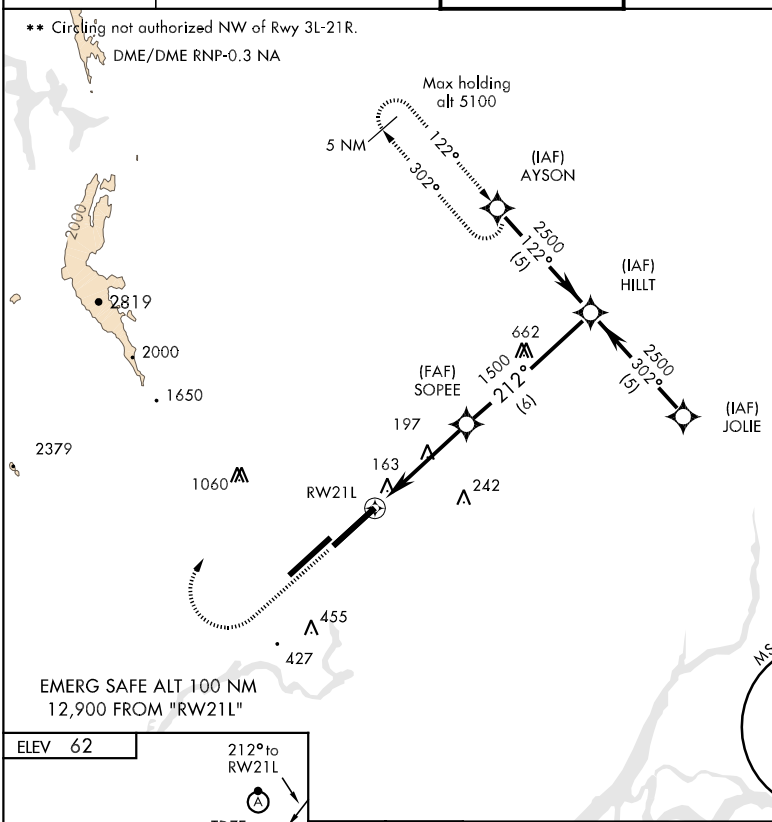
ALSF-2

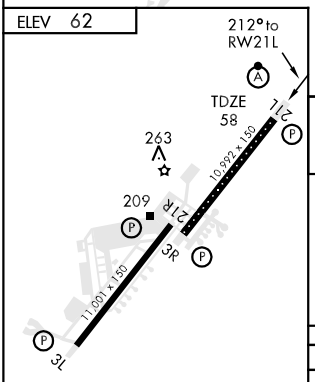
MISSED APPROACH: Climbing right turn to 4100 direct AYSON and hold.

ATIS	TRAVIS APP CON	TRAVIS TOWER	GND CON	CLNC DEL
135.55 292.125	119.9 (S) 126.6 (N) 291.0	120.75 254.4	121.8 289.4	127.55 335.8

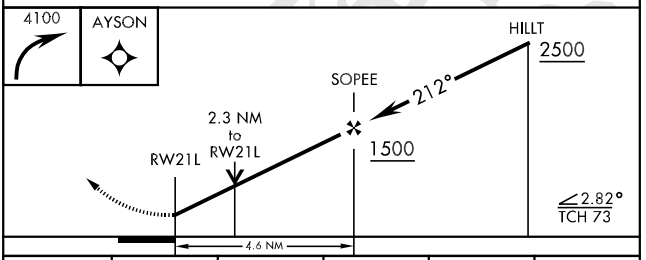
** Circling not authorized NW of Rwy 3L-21R.

DME/DME RNP-0.3 NA





TDZL/CL Rwy 21L
HIRL all Rwy



CATEGORY	A	B	C	D	E
LNAV MDA *	800/24 742 (800-½)	800/40 742 (800-¾)	800-1¾ 742 (800-1¾)	800-2 742 (800-2)	800-2¼ 742 (800-2¼)
CIRCLING **	800-1 738 (800-1)	800-1¼ 738 (800-1¼)	800-2¼ 738 (800-2¼)	800-2½ 738 (800-2½)	1440-3 1378(1400-3)

FAIRFIELD, CALIFORNIA

RNAV (GPS) RWY 21R

APCH CRS	Rwy ldg	11,001
212°	TDZE	53
	Arpt Elev	62

AL-488 [USAF]

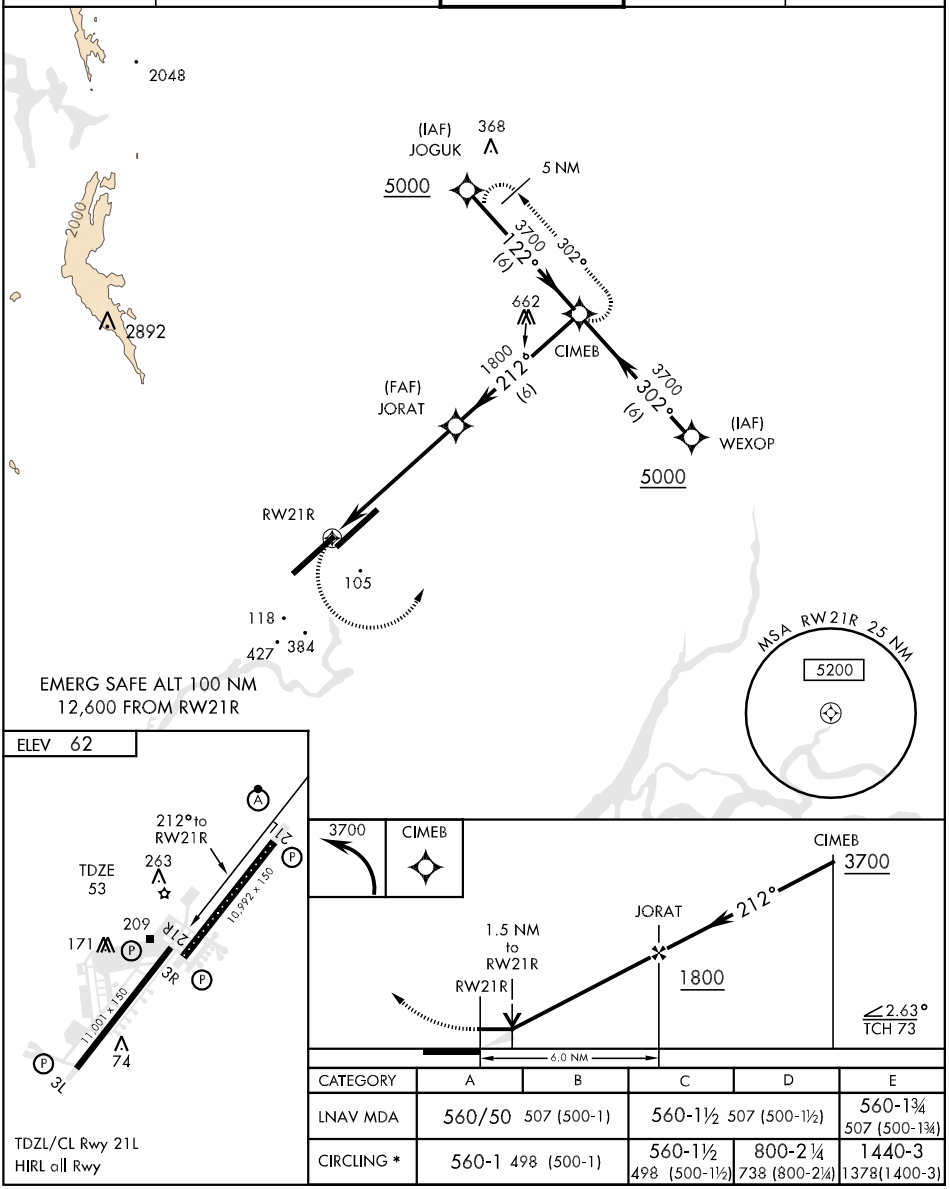
TRAVIS AFB (KSUU)

* Circling not authorized NW of Rwy 3L-21R.

DME/DME RNP-0.3 NA

MISSED APPROACH: Climbing left turn to 3700 direct CIMEB and hold. Climb in holding authorized.

ATIS	TRAVIS APP CON	TRAVIS TOWER	GND CON	CLNC DEL
135.55 292.125	119.9 (S) 126.6 (N) 291.0	120.75 254.4	121.8 289.4	127.55 335.8



CATEGORY	A	B	C	D	E
LNAV MDA	560/50 507 (500-1)		560-1½ 507 (500-1½)		560-1¾ 507 (500-1¾)
CIRCLING *	560-1 498 (500-1)		560-1½ 498 (500-1½)	800-2¼ 738 (800-2¼)	1440-3 1378(1400-3)

TDZL/CL Rwy 21L
HIRL all Rwy

FAIRFIELD, CALIFORNIA

38°16'N-121°56'W

TRAVIS AFB (KSUU)

Orig 09351

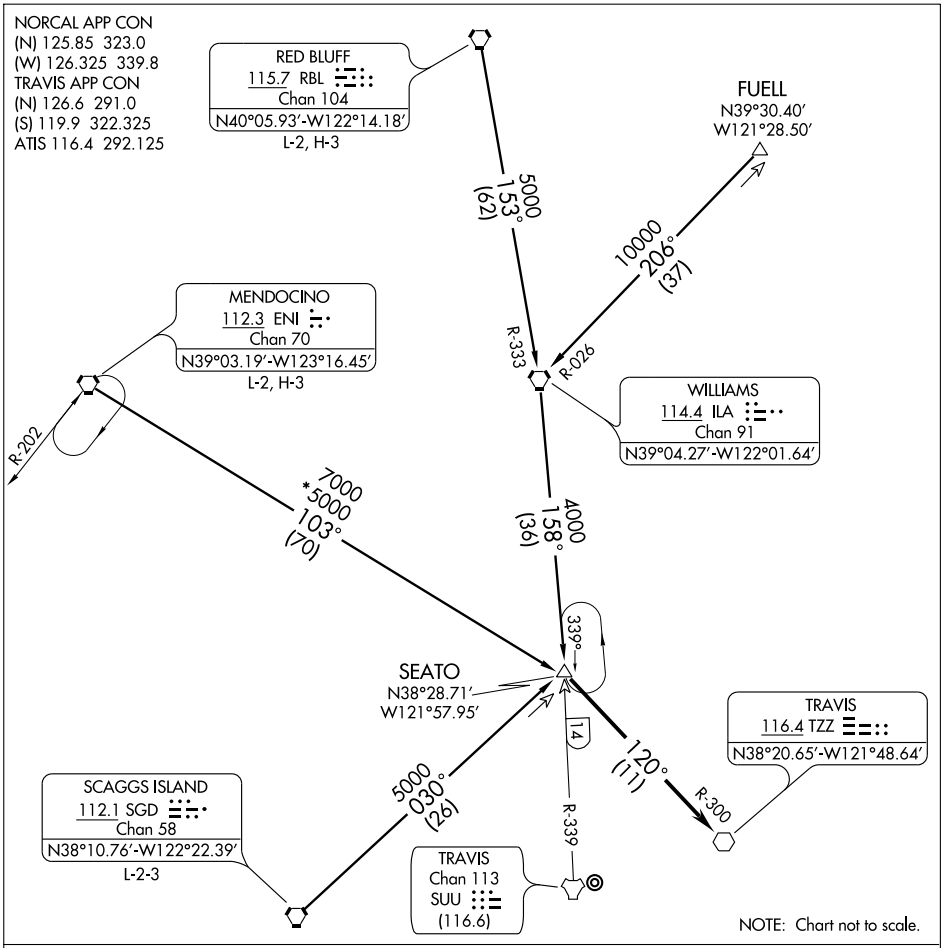
RNAV (GPS) RWY 21R

SW-2, 14 JAN 2010 to 11 FEB 2010

SEATO TWO ARRIVAL

ST-488 (FAA)

TRAVIS AFB
FAIRFIELD, CALIFORNIA



FUELL TRANSITION (FUELL.SEATO2): From over FUELL DME via ILA R-026 to ILA VORTAC then via ILA R-158 to SEATO INT. Thence . . . .

MENDOCINO TRANSITION (ENI.SEATO2): From over ENI VORTAC via ENI R-103 to SEATO INT. Thence . . . .

RED BLUFF TRANSITION (RBL.SEATO2): From over RBL VORTAC via RBL R-153 and ILA R-333 to ILA VORTAC then via ILA R-158 to SEATO INT. Thence . . . .

SCAGGS ISLAND TRANSITION (SGD.SEATO2): From over SGD VORTAC via SGD R-030 to SEATO INT. Thence . . . .

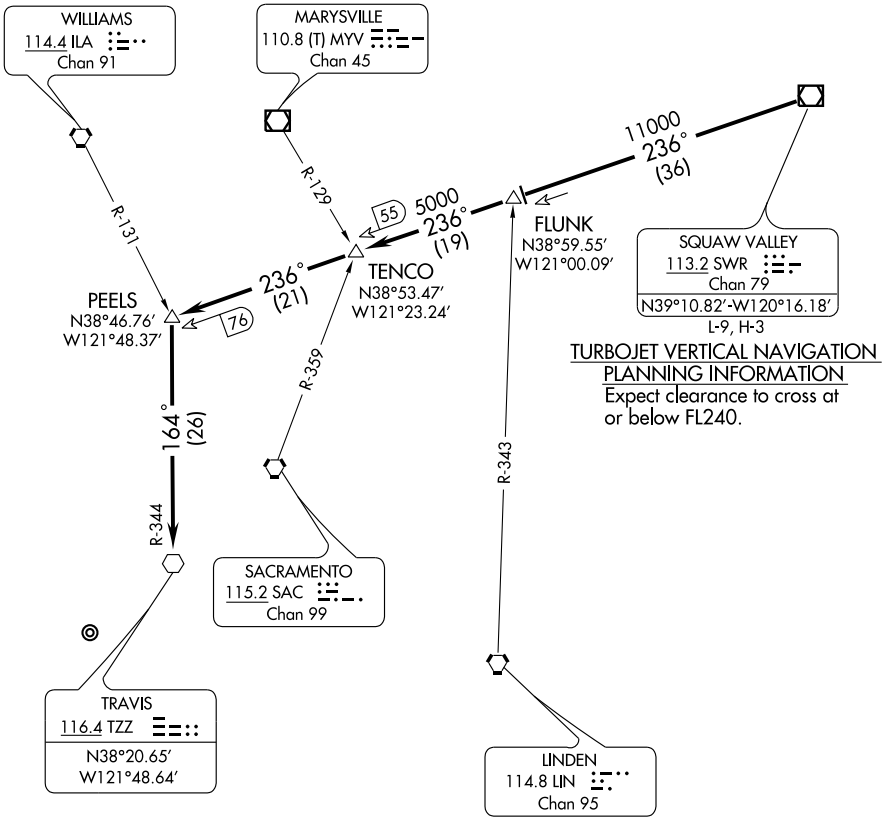
. . . . From over SEATO INT via TZZ R-300 to TZZ VOR. Expect vectors for VOR or ILS Rwy 21L approach. For Rwys 3L/R expect vectors for VOR or ILS 3L approach.

LOST COMMUNICATIONS: For Rwys 3L/R execute VOR or ILS Rwy 21L approach, circle to land Rwy 3L.

SW-2, 14 JAN 2010 to 11 FEB 2010

SQUAW VALLEY ONE ARRIVAL ST-488 (FAA)

NORCAL APP CON
120.45 353.7
TRAVIS APP CON
(N) 126.6 395.8
(S) 119.9 322.325
ATIS 116.4 292.125



TURBOJET VERTICAL NAVIGATION PLANNING INFORMATION
Expect clearance to cross at or below FL240.

NOTE: Chart not to scale.

From over SWR VORTAC via SWR R-236 to PEELS INT, then via TZZ R-344 to TZZ VOR. Expect VOR or ILS Rwy 21L Approach. For Rwy 3L/R: Expect vectors for VOR Rwy 3L Approach.

TACAN RWY 3L

TACAN SUU Chan 113	APCH CRS 042°	Rwy ldg 11,001 TDZE 36 Arpt Elev 62

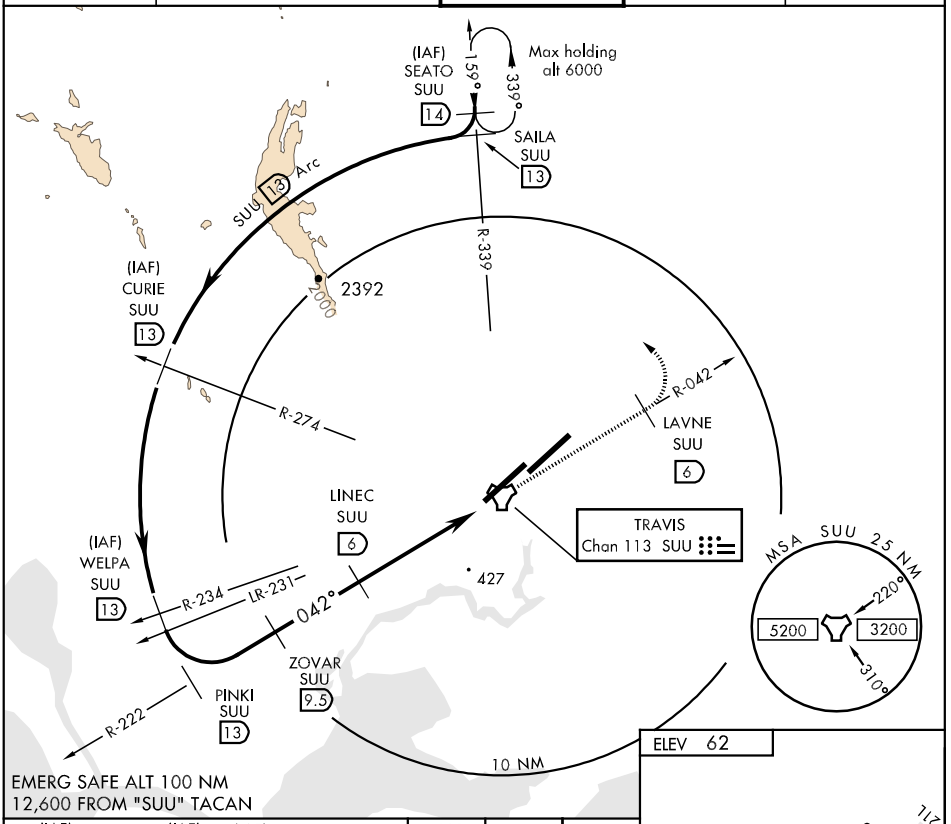
AL-488 [USAF]

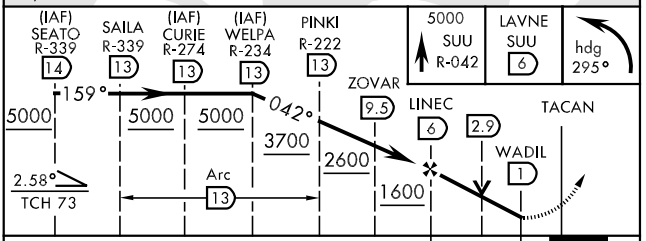
TRAVIS AFB (KSUU)

* Circling not authorized NW of Rwys 3L-21R.

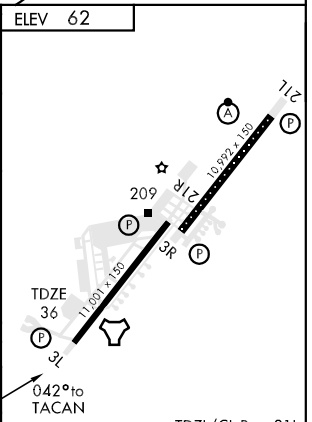
MISSED APPROACH: Climb to 5000 via SUU TACAN R-042 to LAVNE, then turn left via 295° course to intercept SUU R-339 to SEATO and hold, continue climb in hold to 5000.

ATIS	TRAVIS APP CON	TRAVIS TOWER	GND CON	CLNC DEL
135.55 292.125	119.9 (S) 126.6 (N) 291.0	120.75 254.4	121.8 289.4	127.55 335.8





CATEGORY	A	B	C	D	E
S-3L	740/50	704 (700-1)	740-2 704 (700-2)	740-2¼ 704 (700-2¼)	740-2½ 704 (700-2½)
CIRCLING *	740-1	678 (700-1)	740-2 678 (700-2)	800-2¼ 738 (800-2¼)	1440-3 1378(1400-3)



TDZL/CL Rwy 21L HIRL all Rwy

TACAN RWY 21L

TACAN SUU Chan 113	APCH CRS 209°	Rwy ldg 10,992 TDZE 58 Arpt Elev 62

AL-488 [USAF]

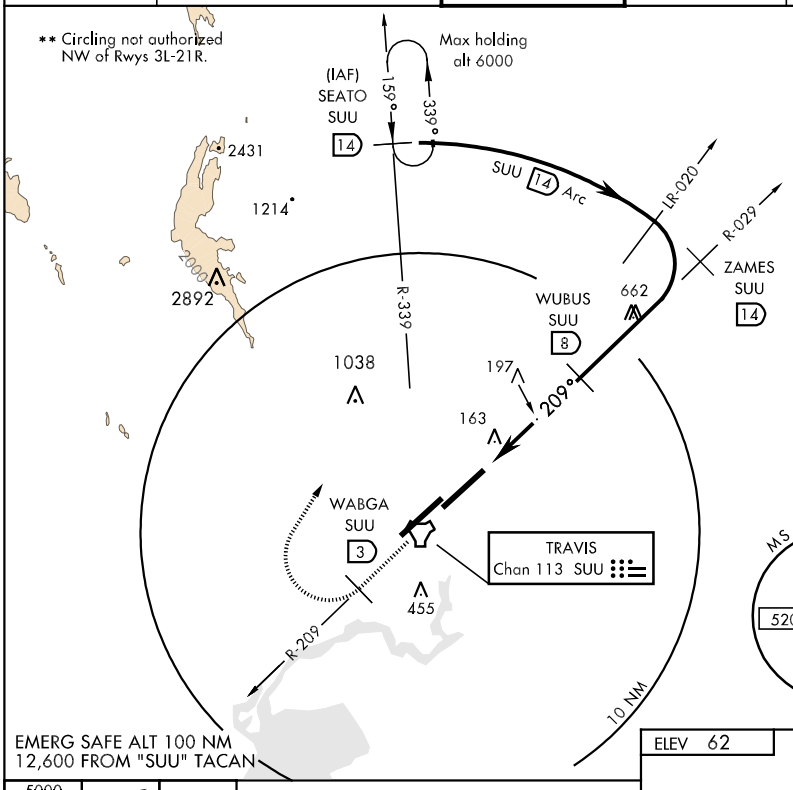
TRAVIS AFB (KSUU)

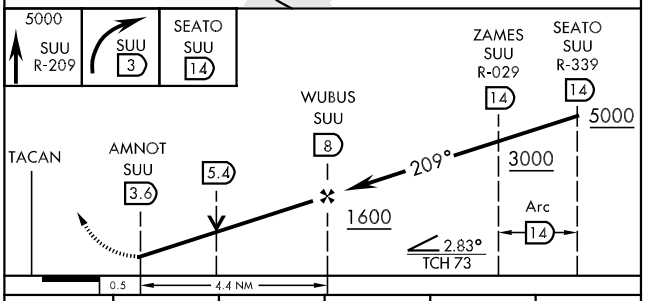
▼* When ALS inop, increase CAT A RVR to 50 and vis to 1 mile, CAT B RVR to 60 and vis to 1¼ miles, CAT C vis to 2¼ miles, CAT D vis to 2½ miles, and CAT E vis to 2¾ miles.

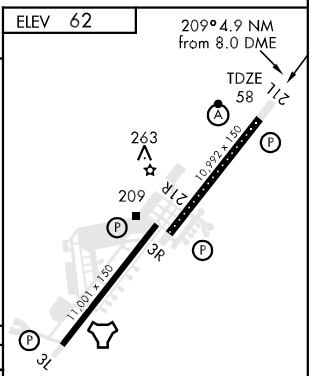
ALSF-2

MISSED APPROACH: Climb to 5000 via SUU TACAN R-209 to WABGA, then turn right hdg 015° to intercept SUU R-339 to SEATO and hold, continue climb in hold to 5000.

ATIS	TRAVIS APP CON	TRAVIS TOWER	GND CON	CLNC DEL
135.55 292.125	119.9 (S) 126.6 (N) 291.0	120.75 254.4	121.8 289.4	127.55 335.8







CATEGORY	A	B	C	D	E
S-21L *	800/24 742 (800-½)	800/40 742 (800-¾)	800-1¾ 742 (800-1¾)	800-2 742 (800-2)	800-2 ¼ 742 (800-2¼)
CIRCLING**	800-1 738 (800-1)	800-1¼ 738 (800-1¼)	800-2¼ 738 (800-2¼)	800-2½ 738 (800-2½)	1440-3 1378(1400-3)

TDZL/CL Rwy 21L
HIRL all Rwy

SW-2, 14 JAN 2010 to 11 FEB 2010

TACAN RWY 21R

TACAN SUU Chan 113	APCH CRS 202°	Rwy ldg 11,001 TDZE 53 Arpt Elev 62

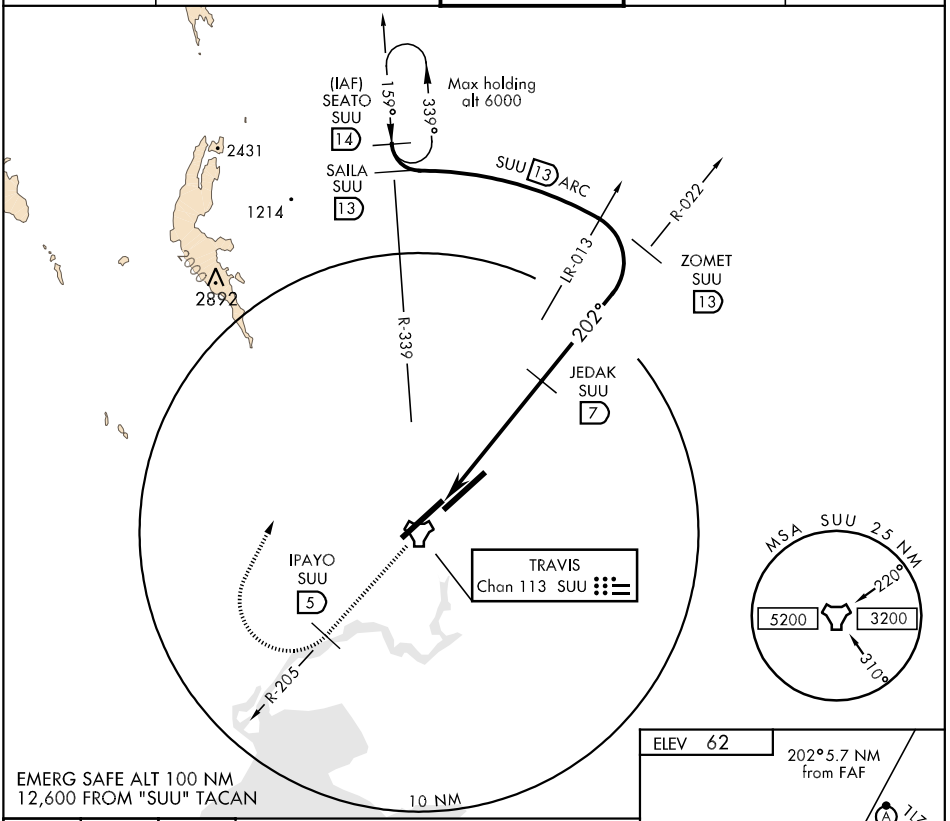
AL-488 [USAF]

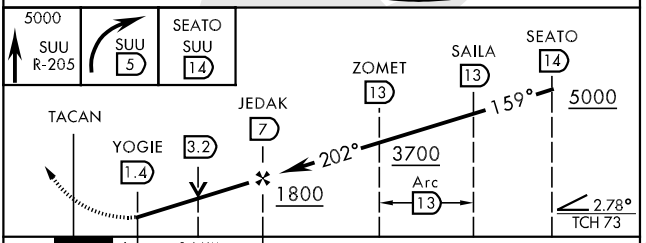
TRAVIS AFB (KSUU)

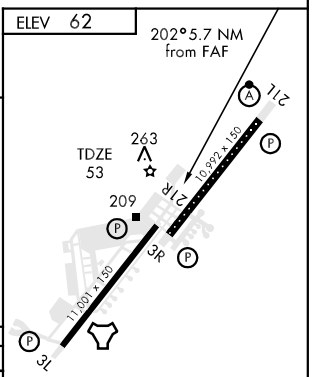
* Circling not authorized NW of Rwys 3L-21R.

MISSED APPROACH: Climb to 5000 via SUU TACAN R-205 to IPAYO, then turn right via 010° course to intercept SUU R-339 to SEATO and hold, continue climb in hold to 5000.

ATIS	TRAVIS APP CON	TRAVIS TOWER	GND CON	CLNC DEL
135.55 292.125	119.9 (S) 126.6 (N) 291.0	120.75 254.4	121.8 289.4	127.55 335.8



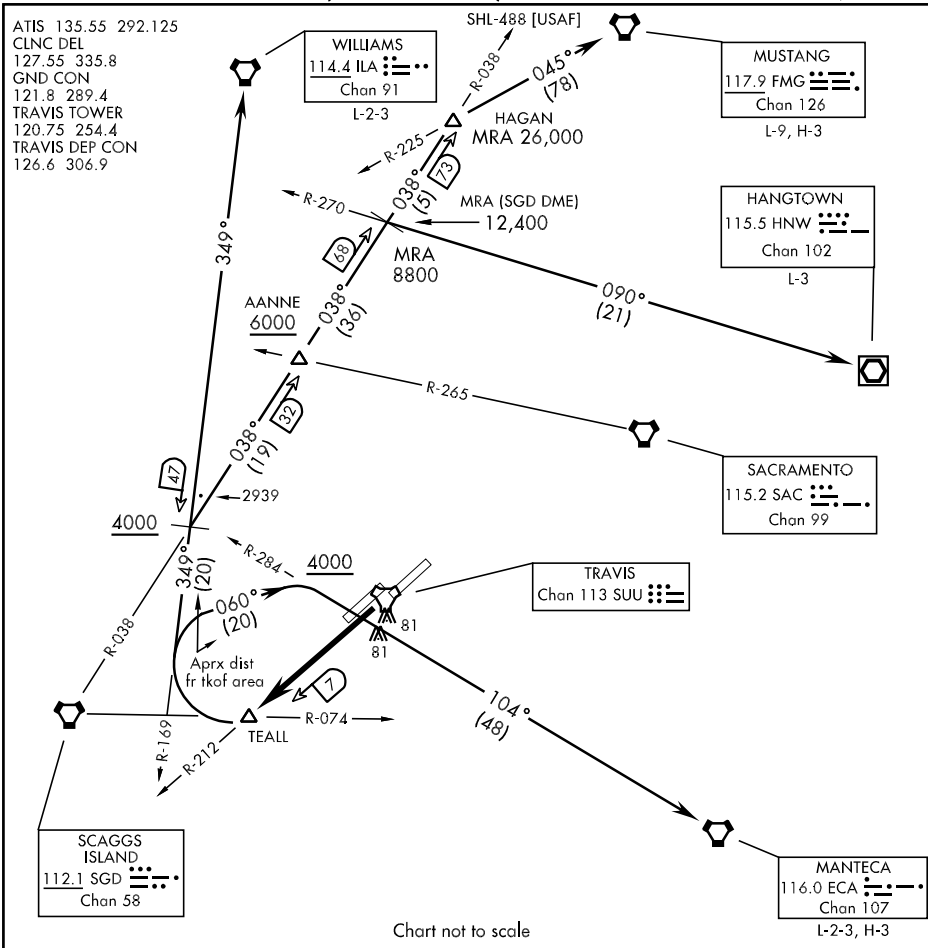




CATEGORY	A	B	C	D	E
S-21R	680/50 627 (700-1)		680-1¾ 627 (700-1¾)	680-2 627 (700-2)	680-2¼ 627 (700-2¼)
CIRCLING *	680-1 618 (700-1)		680-1¾ 618 (700-1¾)	800-2¼ 738 (800-2¼)	1440-3 1378(1400-3)

TDZL/CL Rwy 21L
HIRL all Rwy

TEALL-ONE DEPARTURE (RWY 21 L/R) (TEALL1 • TEALL)



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 21L/R: Climb direct TEALL (SUU TACAN R-212/7 DME). Then via assigned transition (or assigned route).

HANGTOWN TRANSITION (TEALL 1 • HNW): Turn right and track 349°to intercept SGD VORTAC R-038 at or above 4000. Then via SGD R-038/HNW VOR/DME R-270 to HNW. Cross SAC VORTAC R-265 at or above 6000.

MANTECA TRANSITION (TEALL 1 • ECA): Turn right and track 060°to intercept ECA VORTAC R-284 at or above 4000 direct ECA.

MUSTANG TRANSITION (TEALL 1 • FMG): Turn right and track 349°to intercept SGD VORTAC R-038 at or above 4000. Then via SGD R-038 and FMG VORTAC R-225 to FMG. Cross SAC VORTAC R-265 at or above 6000.

WILLIAMS TRANSITION (TEALL 1 • ILA): Turn right to intercept ILA VORTAC R-169 to ILA. Cross ILA 47 DME at or above 4000.

APP CRS	Rwy Idg	2160
181°	TDZE	708
	Apt Elev	708

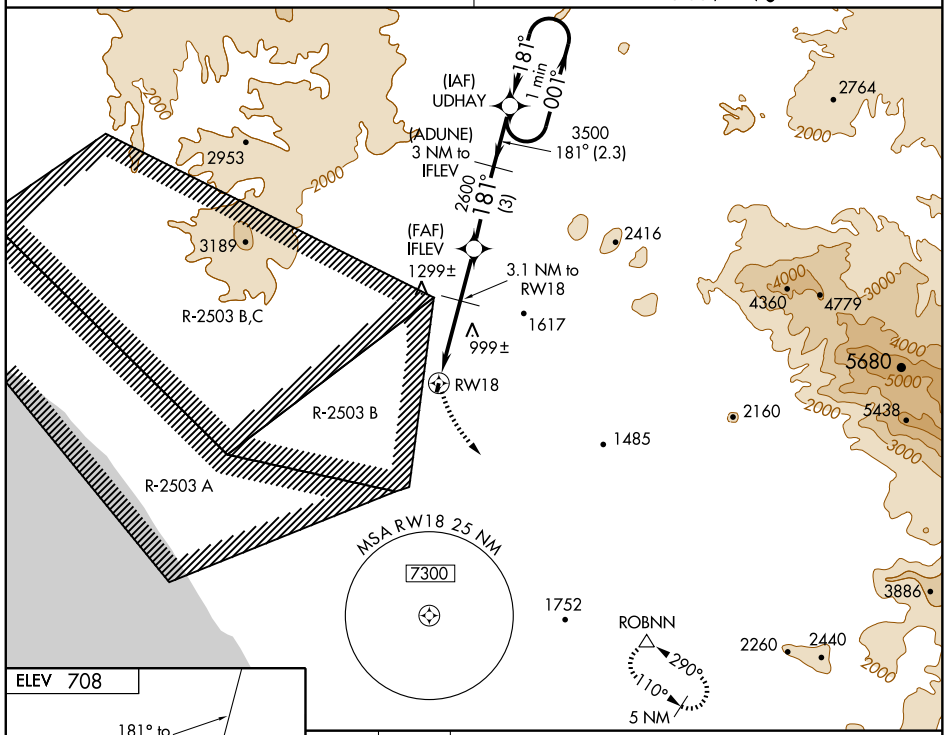
GPS RWY 18

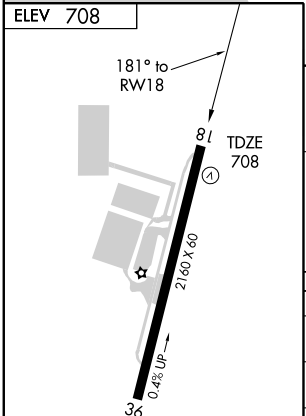
FALLBROOK COMMUNITY AIRPARK (L18)

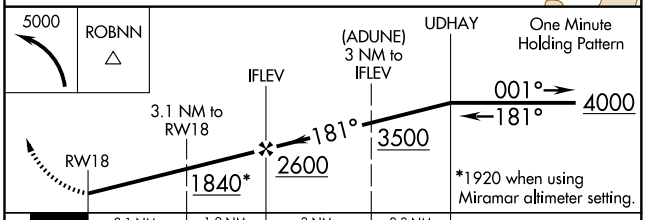
Circling not authorized west of Rwy 18-36.
NA Obtain local altimeter setting on CTAF; when not received, use MCAS Miramar altimeter setting minimums.

MISSED APPROACH: Climbing left turn to 5000 direct ROBNN WP and hold.

SOCAL APP CON	UNICOM
127.3 323.0	123.05 (CTAF) L







CATEGORY	A	B	C	D
S-18	1260-1	552 (600-1)	NA	
CIRCLING	1260-1	552 (600-1)	NA	
MCAS MIRAMAR ALTIMETER SETTING MINIMUMS				
S-18	1360-1	652 (700-1)	NA	
CIRCLING	1360-1	652 (700-1)	NA	

MIRL Rwy 18-36 L

SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC PXN	APP CRS	Rwy Idg	N/A
112.6	044°	TDZE	N/A
Chan 73		Apt Elev	157

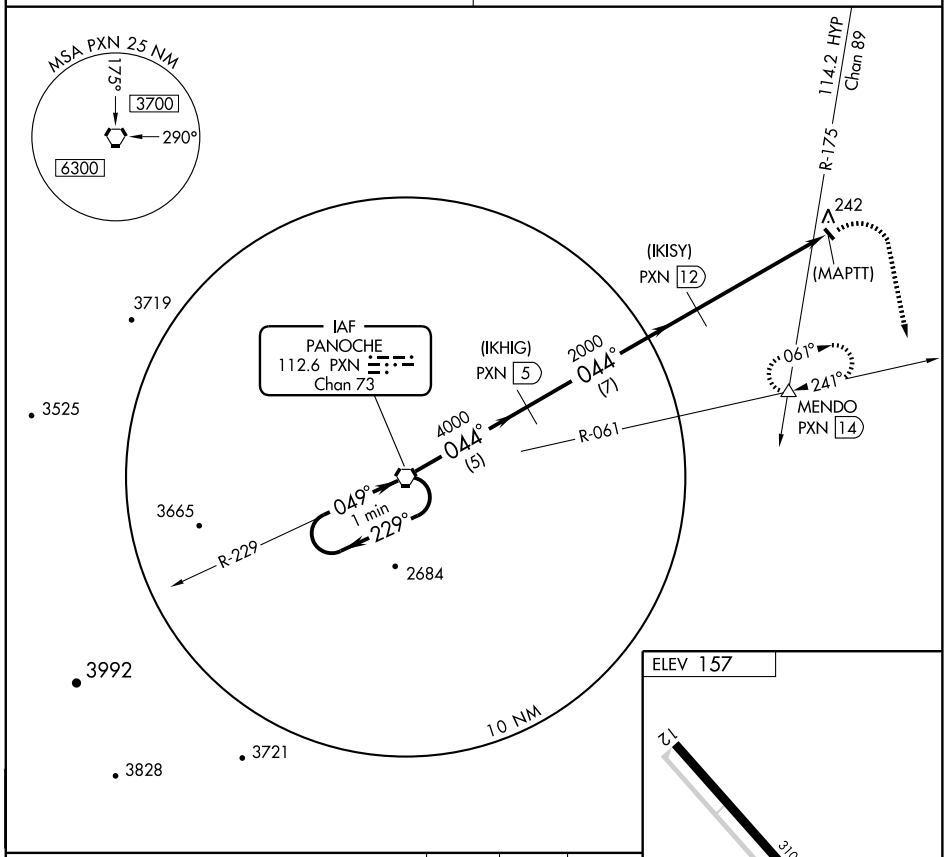
VOR/DME or GPS-A

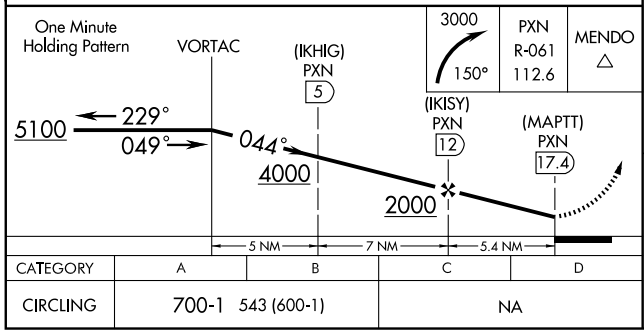
FIREBAUGH (F34)

T
ANA Use Madera altimeter setting.

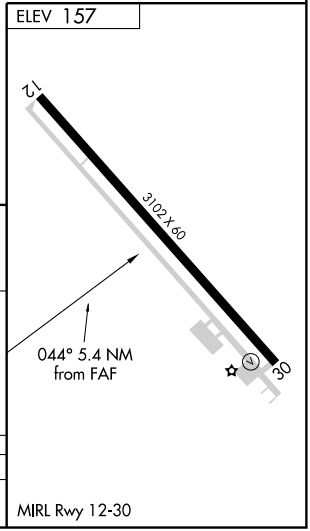
MISSED APPROACH: Climbing right turn to 3000 via heading 150° and PXN R-061 to MENDO Int/PXN 14 DME and hold.

NORCAL APP CON	CTAF
120.95 269.45	122.9





CATEGORY	A	B	C	D
CIRCLING	700-1 543 (600-1)		NA	



APP CRS	Rwy Idg	4005
110°	TDZE	382
	Apt Elev	392

GPS RWY 11

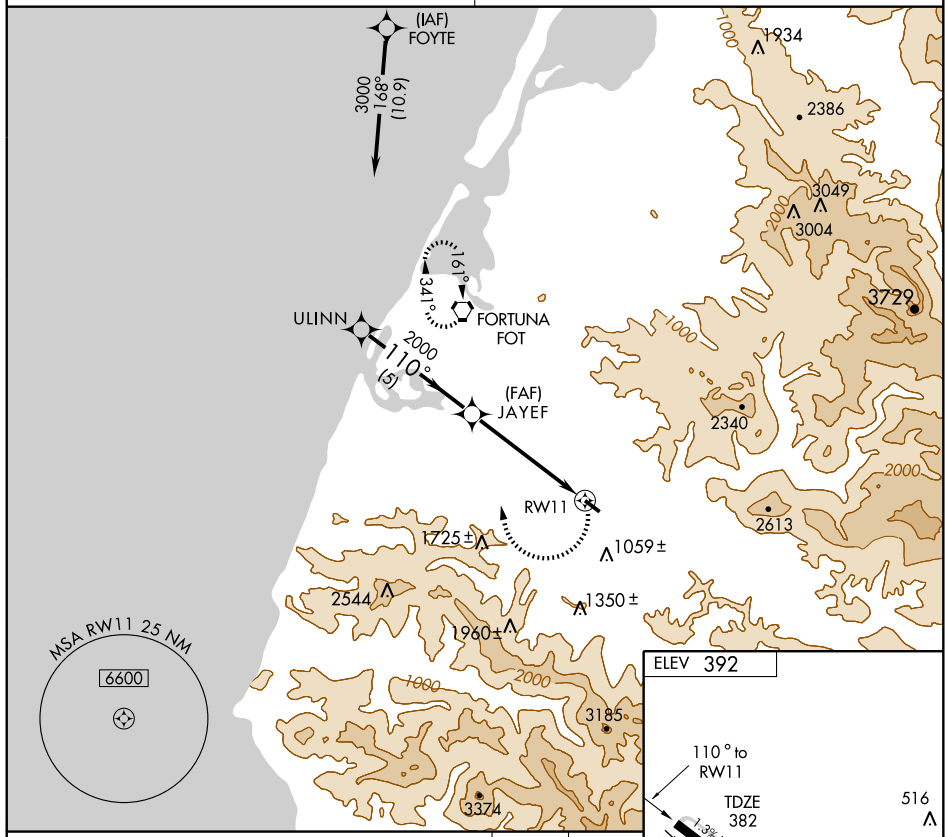
FORTUNA/ ROHNERVILLE (FOT)

Use Arcata altimeter setting.

NA

MISSED APPROACH: Climbing right turn to 3000 direct FOT VORTAC and hold.

SEATTLE CENTER	CTAF
124.85 306.3	122.9 L



CATEGORY	A	B	C	D
S-11	1140-1 758 (800-1)	1160-1 ¼ 778 (800-1¼)	1200-2 ½ 818 (900-2½)	1560-3 1178 (1200-3)
CIRCLING	1140-1 748 (800-1)	1160-1 ¼ 768 (800-1¼)	1320-2 ¾ 928 (1000-2¾)	1560-3 1168 (1200-3)

REIL Rwys 11 and 29
MIRL Rwy 11-29 L

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	4005
276°	TDZE	392
	Apt Elev	392

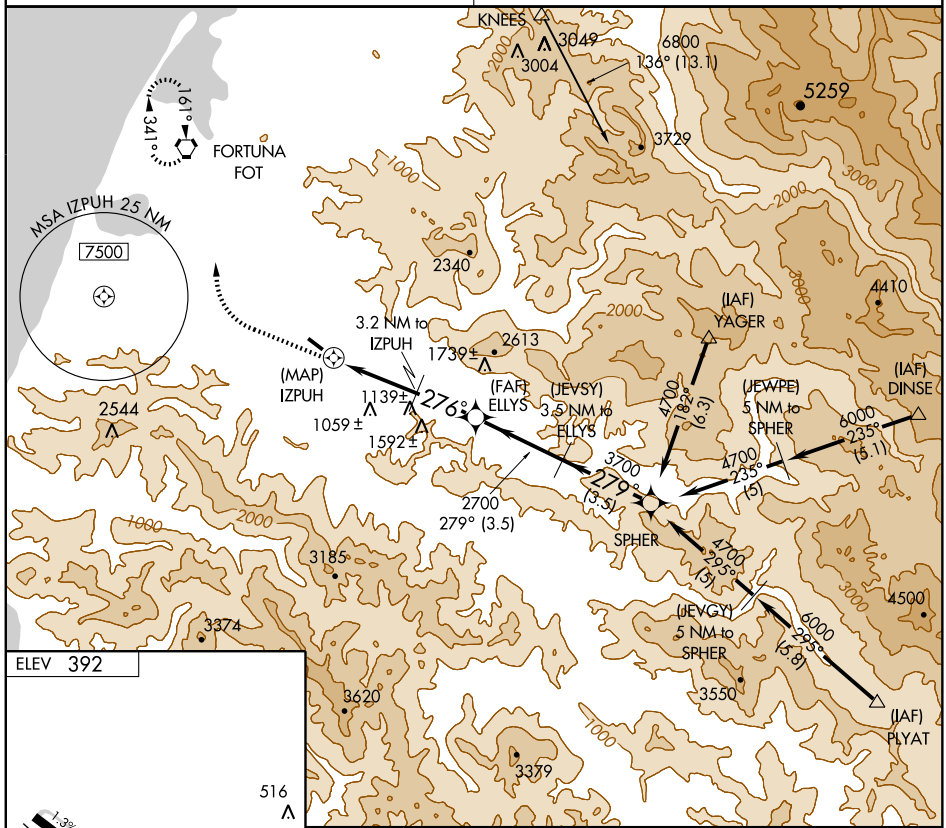
GPS RWY 29

FORTUNA/ROHNERVILLE (FOT)

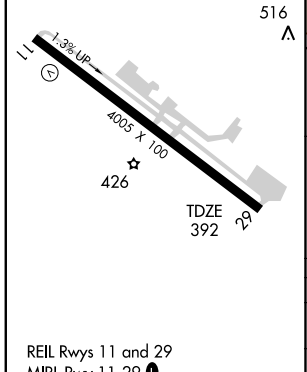
T ANA — Use Arcata altimeter setting.

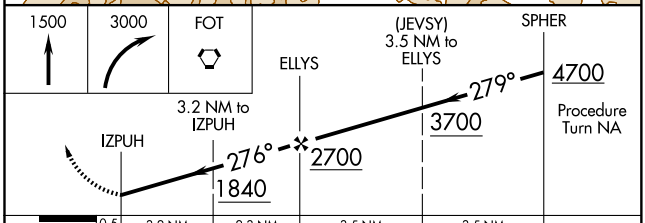
MISSED APPROACH: Climb to 1500 then climbing right turn to 3000 direct FOT VORTAC and hold.

SEATTLE CENTER	CTAF
124.85 306.3	122.9 L



ELEV 392





CATEGORY	A	B	C	D
S-29	1160-1 768 (800-1)	1160-1¼ 768 (800-1¼)	1160-2¼ 768 (800-2¼)	1160-2½ 768 (800-2½)
CIRCLING	1160-1 768 (800-1)	1160-1¼ 768 (800-1¼)	1320-2¾ 928 (1000-2¾)	1460-3 1068 (1100-3)

REIL Rwys 11 and 29
MIRL Rwy 11-29 L

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC FOT	APP CRS	Rwy Idg	4005
114.0	128°	TDZE	382
Chan 87		Apt Elev	392

VOR RWY 11

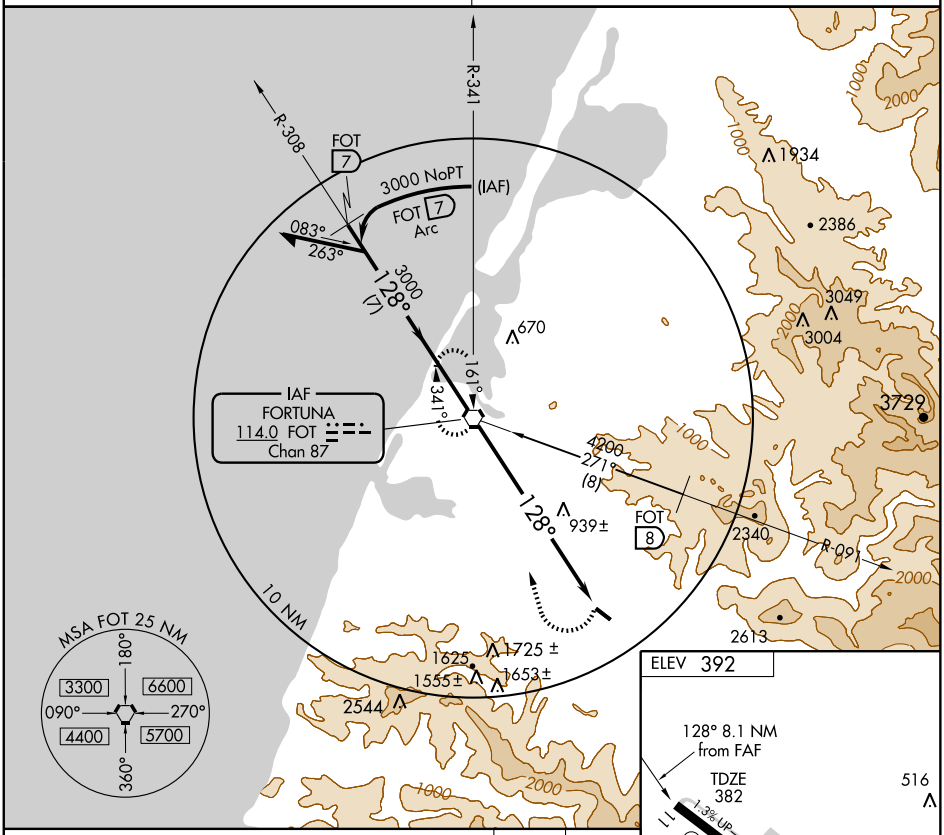
FORTUNA/ROHNERVILLE (FOT)

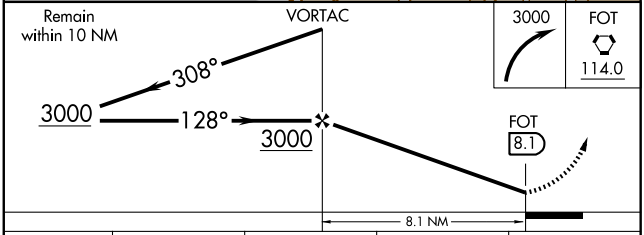
Use Arcata altimeter setting.

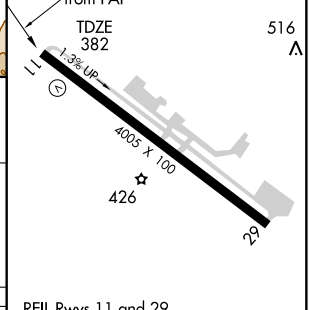
NA

MISSED APPROACH: Climbing right turn to 3000 direct FOT VORTAC and hold.

SEATTLE CENTER	CTAF
124.85 306.3	122.9 L







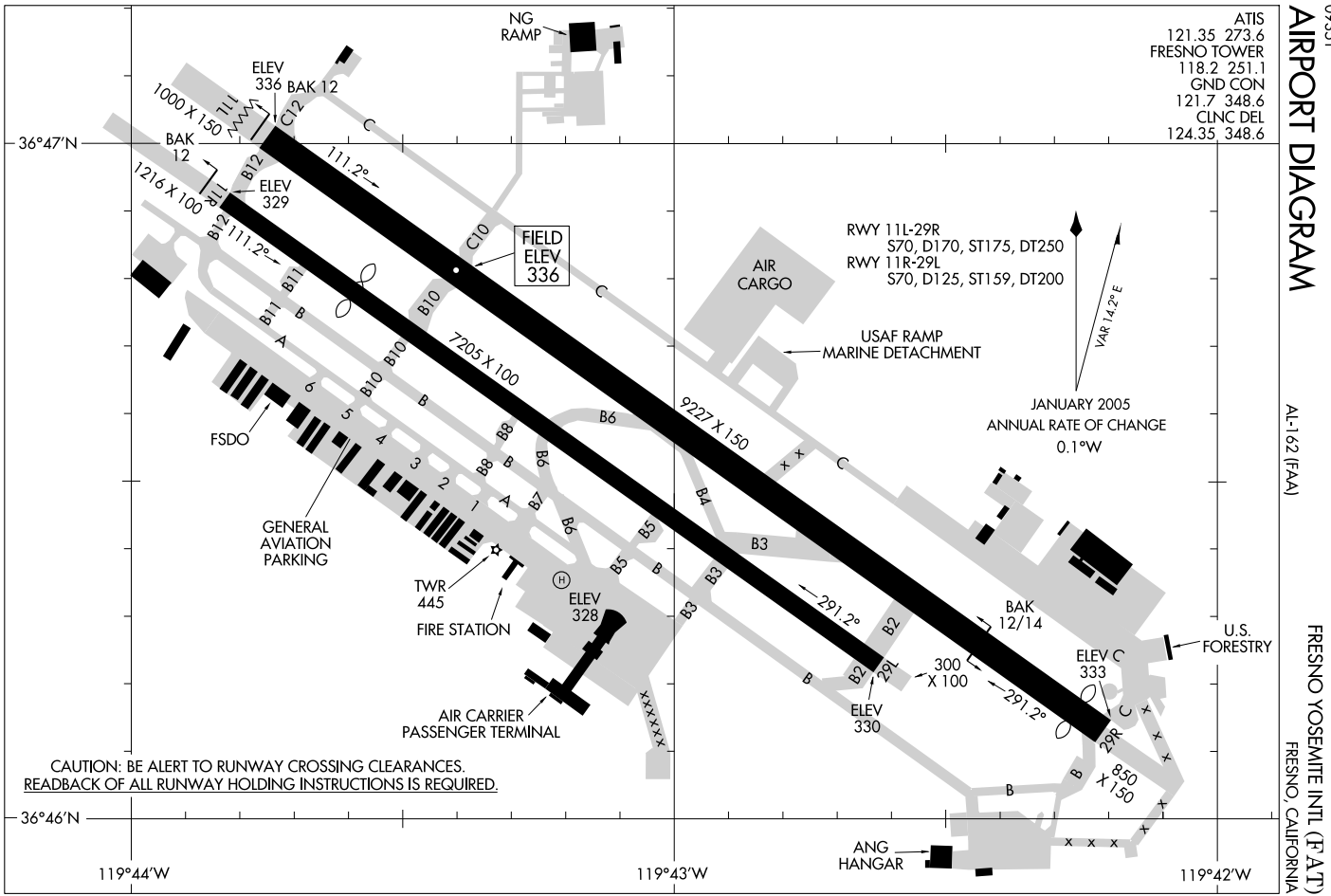
REIL Rwys 11 and 29
MIRL Rwy 11-29 L

CATEGORY	A	B	C	D
S-11	1640-1¼ 1258 (1300-1¼)	1680-1½ 1298 (1300-1½)	1720-3	1338 (1400-3)
CIRCLING	1640-1¼ 1248 (1300-1¼)	1680-1½ 1288 (1300-1½)	1720-3	1338 (1400-3)

FAF to MAP 8.1 NM

Knots	60	90	120	150	180
Min:Sec	8:06	5:24	4:03	3:14	2:42

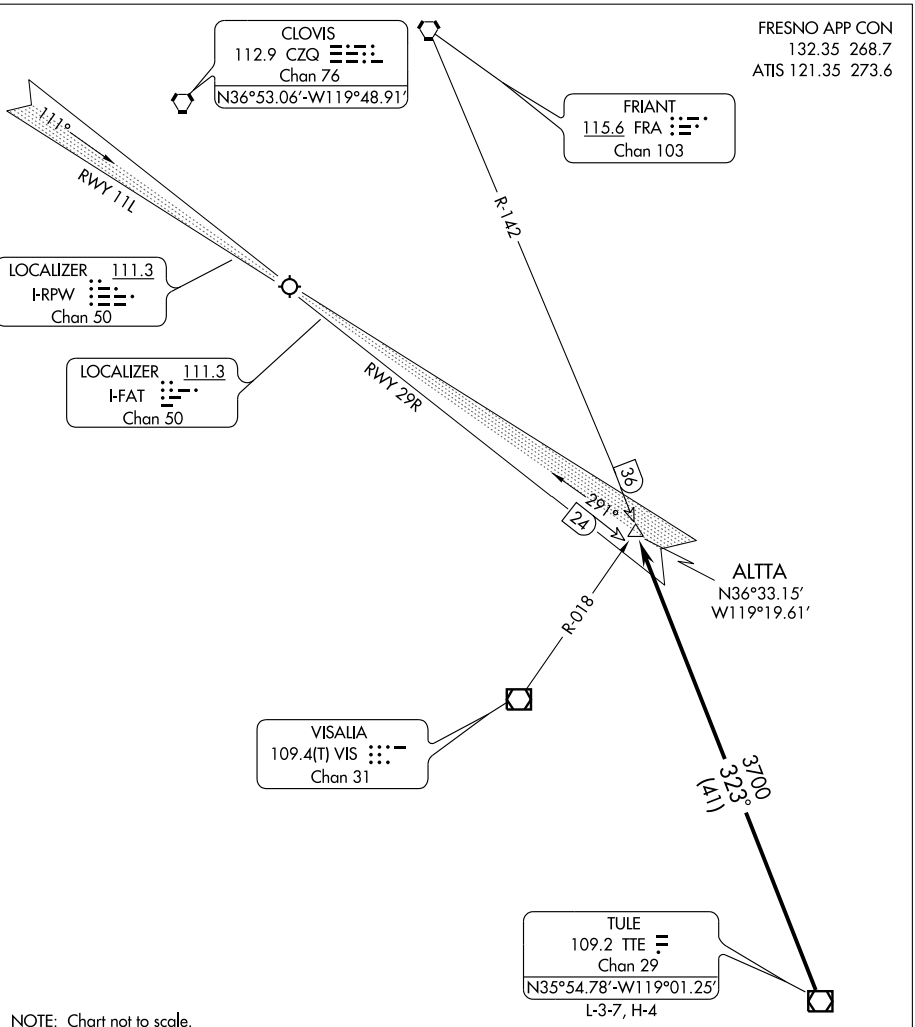
SW-2, 14 JAN 2010 to 11 FEB 2010


AIRPORT DIAGRAM
FRESNO YOSEMITE INTL (FAT)
FRESNO, CALIFORNIA
AL-162 (FAA)
ATIS
121.35 273.6
FRESNO TOWER
118.2 251.1
GND CON
121.7 348.6
CLNC DEL
124.35 348.6
NG RAMP
ELEV 336
BAK 12
1000 X 150
C12
111.2°
36°47'N
BAK 12
1216 X 100
ELEV 329
B12
FIELD ELEV 336
C10
AIR CARGO
RWY 11L-29R
S70, D170, ST175, DT250
RWY 11R-29L
S70, D125, ST159, DT200
VAR 14.2° E
USAF RAMP
MARINE DETACHMENT
7205 X 100
9227 X 150
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°W
FSDO
GENERAL AVIATION PARKING
TWR 445
FIRE STATION
ELEV 328
AIR CARRIER PASSENGER TERMINAL
291.2°
BAK 12/14
300 X 100
ELEV 330
ELEV C 333
U.S. FORESTRY
29R
850 X 150
ANG HANGAR
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
36°46'N
119°44'W
119°43'W
119°42'W

ALTTA EIGHT ARRIVAL

ST-162 (FAA)

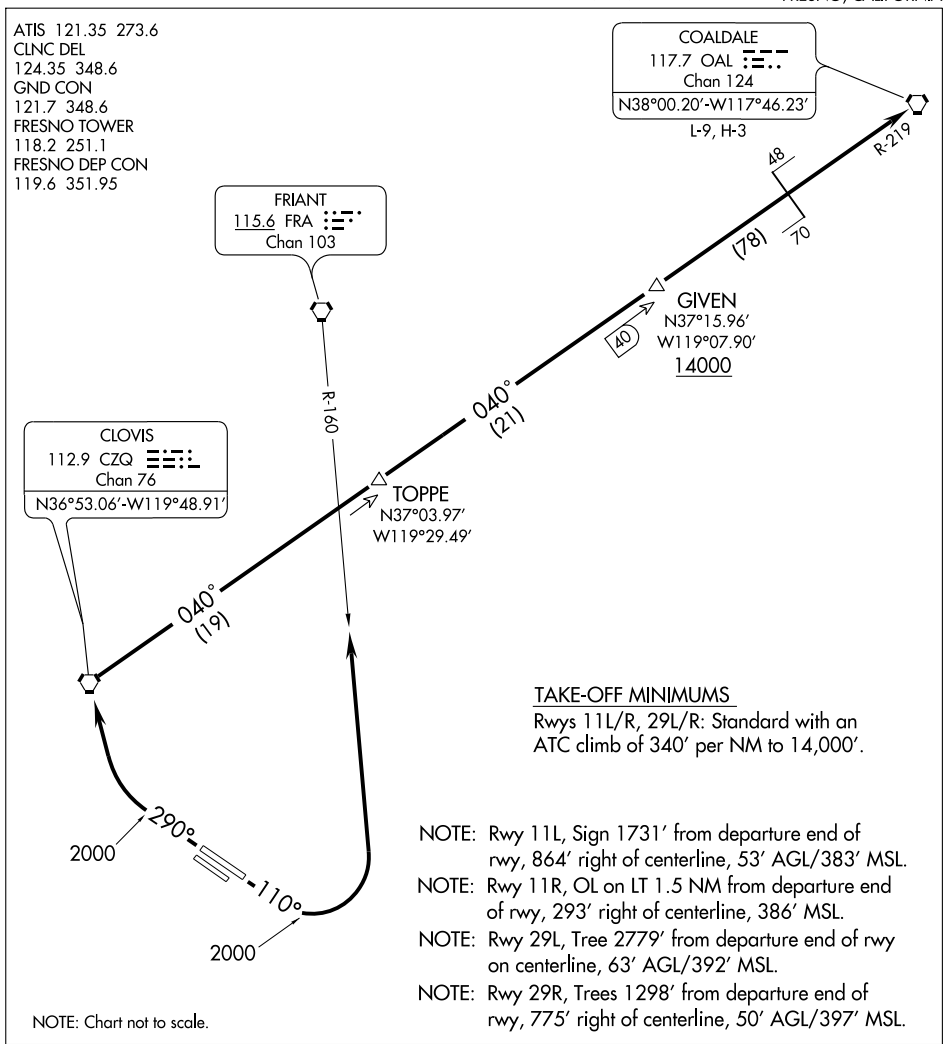
FRESNO YOSEMITE INTL
FRESNO, CALIFORNIA



From over TTE VOR/DME via TTE R-323 and FRA R-142 to ALTTA DME fix. Expect ILS or LOC Rwy 29R approach. For Rwy 11L operations: Expect routing via CZQ VORTAC and radar vectors to Fresno Localizer Rwy 11L approach.

LOST COMMUNICATIONS: Rwy 11L: Execute VOR/DME or TACAN Rwy 11L approach.

COALDALE ONE DEPARTURE



DEPARTURE ROUTE DESCRIPTION

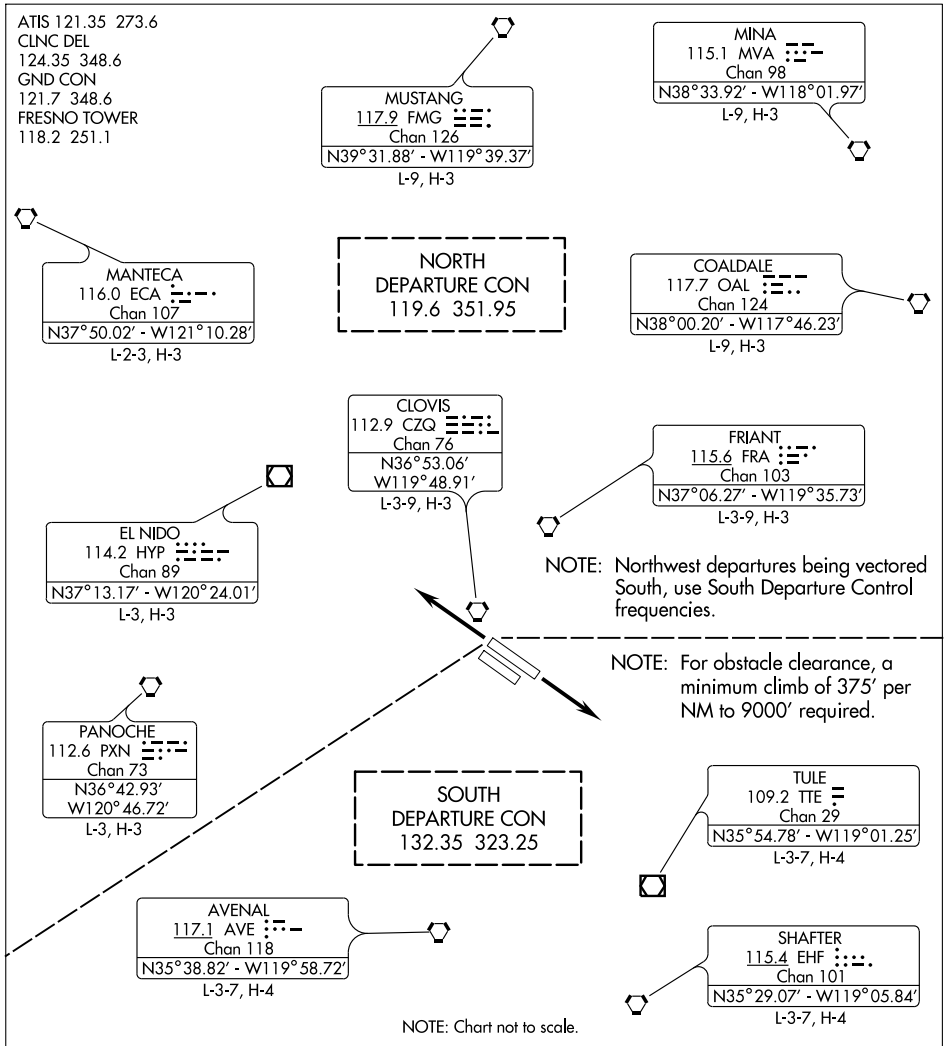
TAKE-OFF RUNWAYS 11L/R: Climb via 110° heading to 2000', then climbing left turn via FRA R-160 and CZQ R-040. Thence . . . .

TAKE-OFF RUNWAYS 29L/R: Climb via 290° heading to 2000', then climbing right turn direct CZQ VORTAC. Thence . . . .

. . . . Intercept and proceed via CZQ R-040 and OAL R-219 to OAL VORTAC. Cross GIVEN DME at or above 14000'. Expect clearance to filed altitude after GIVEN DME.

SW-2, 14 JAN 2010 to 11 FEB 2010

FRESNO FIVE DEPARTURE



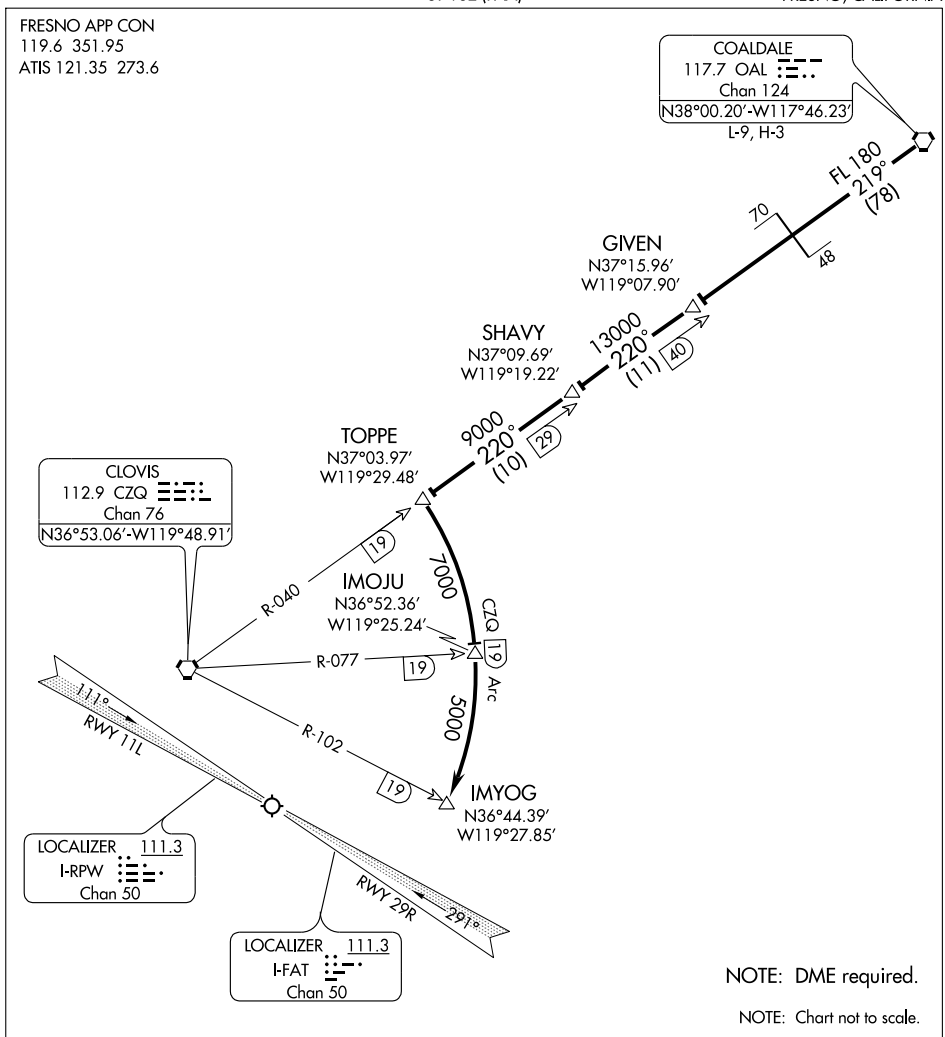
DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 11L/R AND 29L/R: Fly runway heading for vectors to assigned route/fix. Expect clearance to filed altitude five minutes after departure.

LOST COMMUNICATIONS: If no radio contact for two minutes, aircraft enroute to FRA, MVA, FMG and OAL proceed direct CZQ VORTAC, then direct FRA VORTAC, cross FRA VORTAC at or above 9000′, thence via (assigned route) to filed altitude.

SW-2, 14 JAN 2010 to 11 FEB 2010

GIVEN SIX ARRIVAL



From over OAL VORTAC via OAL R-219 and CZQ R-040 to TOPPE DME fix, thence . . . .

. . . . RWY 11L: arrivals can expect radar vectors from TOPPE DME fix to FRESNO Rwy 11L localizer.

. . . . RWY 29R: south via CZQ 19 DME arc to IMYOG R-102/19 DME, then via radar vectors to intercept the FRESNO ILS Rwy 29R localizer course.

SW-2, 14 JAN 2010 to 11 FEB 2010

HI-ILS or LOC/DME RWY 29R

LOC/DME I-FAT	APCH CRS	Rwy Idg	29R	8915	29L	7205
111.3	291°	TDZE	29R	333	29L	330
Chan 50		Arpt Elev		336		

JAL-162 [USAF] FRESNO YOSEMITE INTL (KFAT)

ALSF-2

MISSED APPROACH: Climb to 800 then climbing right turn to 2000 direct CZQ VORTAC and hold. (TACAN aircraft continue climb to 3000 via CZQ R-307 to OXVEV/7 DME and hold northwest, right turns, 127° inbound).

ATIS	FRESNO APP CON	FRESNO TOWER	GND CON	CLNC DEL
121.35 273.6	132.35 323.25	118.2 251.1	121.7 348.6	124.35 348.6

* When ALS inop, increase CAT CDE RVR to 40.
** When ALS inop, increase CAT E RVR to 60.

CLOVIS 112.9 CZQ Chan 76

MSA CZQ 25 NM
120° 7700
1900
300°

R-307
OXVEV CZQ 7
127°
307°
R-118

DME REQUIRED

3731
2200
1706
1182
779
791
429
554
640
504
639
2149

LOCALIZER 111.3 I-FAT Chan 50
Use I-FAT DME when on LOC course

SANGO I-FAT CZQ 12.1 18.9
STORI I-FAT 6.1
291°

Radar required for terminal route CLOVIS (CZQ) VORTAC to STORI int.

20 NM
FEEDER FACILITIES
HIGH ALTITUDE FACILITIES

(IAF) GRIFN CZQ 34.2
298°
R-118
337° 9000 (61)
R-033
9000 017° (61)

VISALIA 109.4 VIS Chan 31

SHAFTER
AVENAL

EMERG SAFE ALT 100 NM 16,700

ELEV 336

Rwy 11R ldg 5757'
Rwy 29R ldg 8915'

362
371
391
TDZE 333
TWR 445
363
TDZE 330
404
11L
11R
29L
29R
9227 x 150
7205 x 100

291° 4.4 NM from FAF

REIL Rwys 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZL/CL Rwy 29R

800 | 2000 | CZQ 112.9

VGSI and ILS glidepath not coincident.

SANGO I-FAT 12.1 Intcp Lczr
GRIFN CZQ R-118 34.2
298° 16,000 9000
291° 3500
I-FAT 1.7
I-FAT 2.6
STORI I-FAT 6.1
I-FAT DME
1800
GS 3.00° TCH 58
.9 NM
3.5 NM

CATEGORY	C	D	E
S-ILS 29R *	533/18 200 (200-⅜)		533/24 200 (200-½)
S-LOC 29R**	680/24 347 (400-½)	680/40 347 (400-¾)	
SIDE STEP RWY 29L	680-1½ 350 (400-1½)	680-2 350 (400-2)	
CIRCLING	820-1½ 484 (500-1½)	920-2 584 (600-2)	1140-2¾ 804 (900-2¾)

SW-2, 14 JAN 2010 to 11 FEB 2010

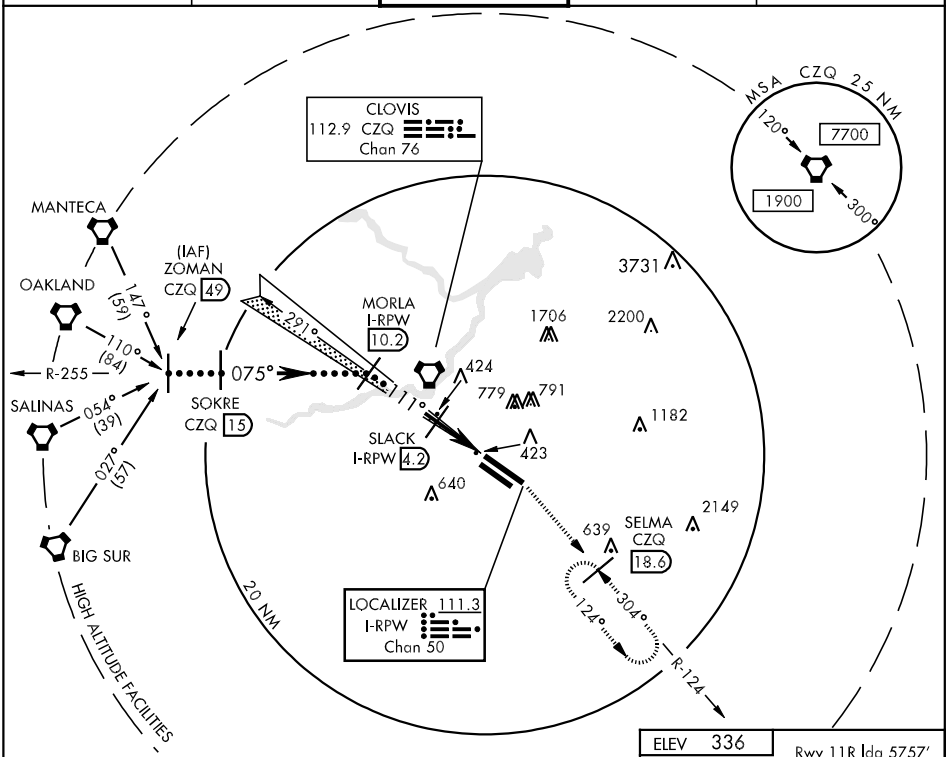
HI-LOC/DME RWY 11L

LOC/DME I-RPW	APCH CRS	Rwy Idg	11L 9227	11R 5757
111.3 Chan 50	111°	TDZE	11L 336	11R 333
		Arpt Elev	336	

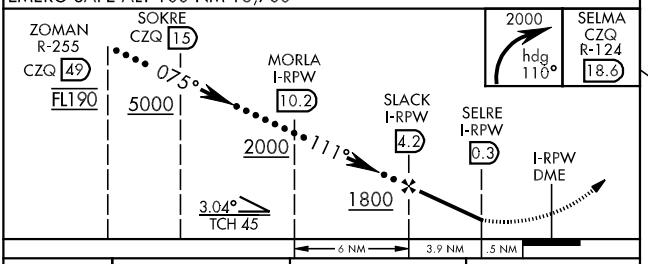
JAL-162 [USAF] FRESNO YOSEMITE INTL (KFAT)

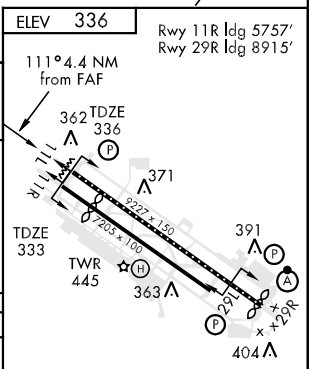
MISSED APPROACH: Climb to 2000 via heading 110° and CZQ R-124 to SELMA 18.6 DME and hold.

ATIS	FRESNO APP CON	FRESNO TOWER	GND CON	CLNC DEL
121.35 273.6	119.6 351.95	118.2 251.1	121.7 348.6	124.35 348.6



EMERG SAFE ALT 100 NM 16,700





REIL Rwys 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZL/CL Rwy 29R

CATEGORY	C	D	E
S-11L	680/50 344 (400-1)	680/60 344	(400-1¼)
SIDE STEP RWY 11R	680-1½ 347 (400-1½)	680-2 347	(400-2)
CIRCLING	820-1½ 484 (500-1½)	920-2 584 (600-2)	1140-2¾ 804 (900-2¾)

SW-2, 14 JAN 2010 to 11 FEB 2010

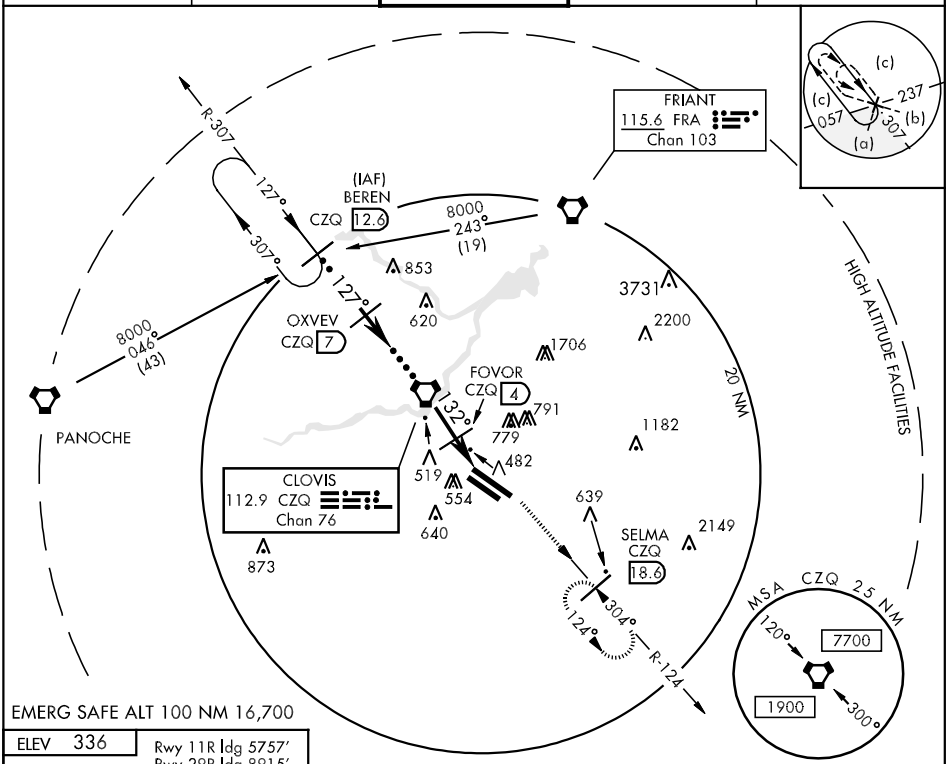
HI-VOR/DME or TACAN RWY 11L

VORTAC CZQ	APCH CRS	Rwy Idg	11L	9227	11R	5757
112.9	132°	TDZE	11L	336	11R	333
Chan 76		Arpt Elev		336		

JAL-162 [USAF] FRESNO YOSEMITE INTL (KFAT)

MISSED APPROACH: Climbing left turn to 2000 via CZQ R-124 to SELMA 18.6 DME and hold.

ATIS	FRESNO APP CON	FRESNO TOWER	GND CON	CLNC DEL
121.35 273.6	119.6 351.95	118.2 251.1	121.7 348.6	124.35 348.6

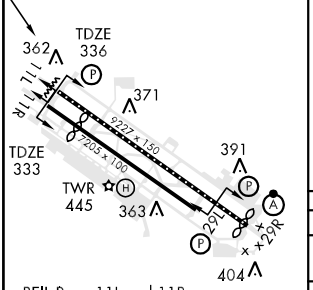


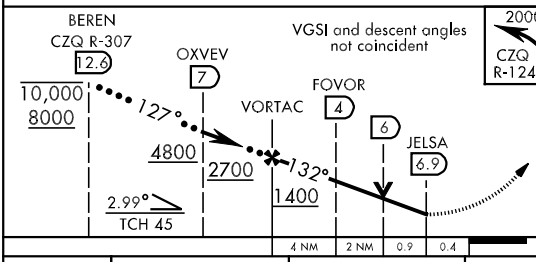
EMERG SAFE ALT 100 NM 16,700

ELEV 336

Rwy 11R ldg 5757′
Rwy 29R ldg 8915′

132° 7.4 NM from FAF





CATEGORY	C	D	E
S-11L	800/60 464 (500-1¼)	800-1½ 464 (500-1½)	800-1¾ 464 (500-1¾)
SIDESTEP 11R	800-1½ 467 (500-1½)	800-2	467 (500-2)
CIRCLING	820-1½ 484 (500-1½)	920-2 584 (600-2)	1140-2¾ 804 (900-2¾)

SW-2, 14 JAN 2010 to 11 FEB 2010

HI-VOR/DME or TACAN RWY 29R

VORTAC CZQ	APCH CRS	Rwy Idg	29R 8915	29L 7205
112.9	306°	TDZE	29R 333	29L 330
Chan 76		Arpt Elev	336	

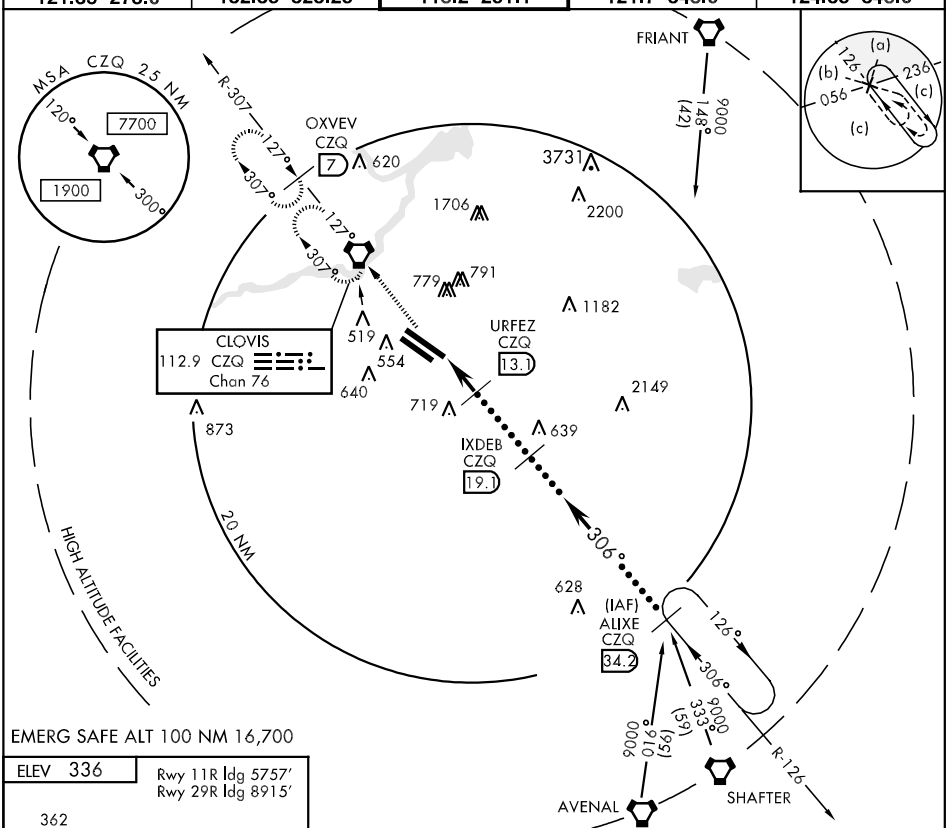
JAL-162 [USAF] FRESNO YOSEMITE INTL (KFAT)

▼ *When ALS inop, increase CAT C RVR to 60, CAT DE vis to 1½.

ALSF-2

MISSED APPROACH: Climb to 2000 via CZQ VORTAC R-126 to CZQ VORTAC and hold. (TACAN acft continue climb to 3000 via CZQ R-307 to OXVEV 7 DME and hold NW, RT 127° inbound).

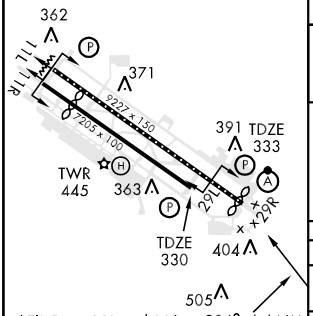
ATIS	FRESNO APP CON	FRESNO TOWER	GND CON	CLNC DEL
121.35 273.6	132.35 323.25	118.2 251.1	121.7 348.6	124.35 348.6

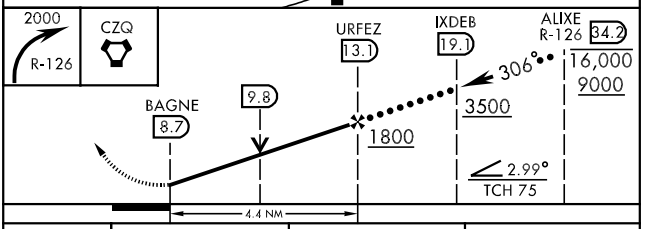


EMERG SAFE ALT 100 NM 16,700

ELEV 336

Rwy 11R ldg 5757′
Rwy 29R ldg 8915′





CATEGORY	C	D	E
S-29R*	760/40 427 (500-¾)	760/50	427 (500-1)
SIDESTEP 29L	760-1½ 430 (500-1½)	760-2	430 (500-2)
CIRCLING	820-1½ 484 (500-1½)	920-2 584 (600-2)	1140-2¾ 804 (900-2¾)

SW-2, 14 JAN 2010 to 11 FEB 2010

FRESNO, CALIFORNIA AL-162 (FAA)

ILS or LOC/DME RWY 29R

FRESNO YOSEMITE INTL (FAT)

LOC/DME I-FAT	APP CRS	Rwy 29R ldg	TDZE	Rwy 29L ldg	TDZE
111.3 Chan 50	291°	8915	333	7205	330
		Apt Elev	336	Apt Elev	336

For inoperative ALSF-2, increase S-ILS Cat E visibility to RVR 4000 and S-LOC Cat E visibility to RVR 6000. Hold in lieu of PT not authorized for Cat E aircraft.

ALSF-2 Rwy 29R

MISSED APPROACH: Climb to 800, then climbing right turn to 2000 direct CZQ VORTAC and hold. (TACAN aircraft climb to 3000 via CZQ VORTAC R-307 to OXVEV/ CZQ 7 DME and hold NW, RT, 127° inbound.)

ATIS	FRESNO APP CON	FRESNO TOWER	GND CON	CLNC DEL
121.35 273.6	119.6 351.95	118.2 251.1	121.7 348.6	124.35 348.6

TACAN MISSED APCH FIX

OXVEV CZQ 7

112.9 CZQ Chan 76

R-307 127° 307°

CLOVIS 112.9 CZQ Chan 76

Radar required for terminal route CLOVIS (CZQ) VORTAC to STORI INT.

ALTERNATE MISSED APCH FIX

NIVEE FRA 8

115.6 FRA Chan 103

022° 202° R-202

2000 to STORI 122° (113)

779

10 NM

LOCALIZER 111.3 I-FAT Chan 50

554 515 505 IM

(IAF) STORI I-FAT 6.1

Maximum holding airspeed 200 KIAS

429± 484± 489± 660

291° 111° 1 min

(IF) SANGO I-FAT 12.1

1800 291° (6.1)

2108

MSA CZQ 25 NM

120° 7700 1900 300°

DME REQUIRED

2600 NoPT 291° (12)

(IAF) ALTTA I-FAT 24.1

ELEV 336

362 371 391 TDZE 333 TWR 445 363 404 TDZE 330

11L 29R 11R 29L

07205 X 100 9227 X 150

291° 4.4 NM from FAF

REIL Rwys 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZ/CL Rwy 29R

800 2000 CZQ 112.9

STORI I-FAT 6.1

VGSI and ILS glidepath not coincident

One Minute Holding Pattern

I-FAT 1.7 I-FAT 2.6 IM

1800 111° 291° 1800 291° 1800

GS 3.00° TCH 58

0.1 0.8 3.5 NM

CATEGORY	A	B	C	D	E
S-ILS 29R	533/18 200 (200-½)				533/24 200 (200-½)
S-LOC 29R	680/24 347 (400-½)			680/40 347 (400-¾)	
SIDESTEP RWY 29L	740-1 410 (500-1)		740-1½ 410 (500-1½)	740-2 410 (500-2)	
CIRCLING	820-1 484 (500-1)		820-1½ 484 (500-1½)	920-2 584 (600-2)	1140-2¾ 804 (900-2¾)

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-FAT	APP CRS	Rwy Idg	8915
111.3	291°	TDZE	333
Chan 50		Apt Elev	336

ILS RWY 29R (CAT II)

FRESNO YOSEMITE INTL (FAT)

ALSF-2

MISSED APPROACH: Climb to 800, then climbing right turn to 2000 direct CZQ VORTAC and hold. (TACAN aircraft climb to 3000 via CZQ VORTAC R-307 to OXVEV/CZQ 7 DME and hold NW, RT, 127° inbound.)

ATIS	FRESNO APP CON	FRESNO TOWER	GND CON	CLNC DEL
121.35 273.6	119.6 351.95	118.2 251.1	121.7 348.6	124.35 348.6

TACAN MISSED APCH FIX

OXVEV
CZQ 7
112.9 CZQ
Chan 76
R-307
127°
307°

Radar required for terminal route CLOVIS (CZQ) VORTAC to STORI INT.

CLOVIS
112.9 CZQ
Chan 76

ALTERNATE MISSED APCH FIX

NIVEE
FRA 8
115.6 FRA
Chan 103
R-202
022°
202°

2000 to STORI
122°
(13)

779

LOCALIZER 111.3
I-FAT
Chan 50

554
515
505
IM

(IAF)
STORI
I-FAT 6.1
Maximum holding airspeed 200 KIAS

429±
484±
489±
660
2108

10 NM

291°
1 min
111°
1800
(6.1)

(IF)
SANGO
I-FAT 12.1

MSA CZQ 25 NM
120°
300°
7700
1900

DME REQUIRED

2600 NoPT
291°
(12)

(IAF)
ALTTA
I-FAT 24.1

ELEV 336

362
371
391
404
TDZE
333
TWR
445
363
9227 X 150
07205 X 100
11L
29R
11R
29L

800	2000	CZQ
↑	↱	⬡
		112.9

STORI
I-FAT 6.1

One Minute Holding Pattern

1800
DH
RA 102
IM
291°
111°
1800
291°
1800
333
MSL
VGSI and ILS glidepath not coincident
GS 3.00°
TCH 58

1050′ 820′ 4.3 NM

CATEGORY	A	B	C	D
S-ILS 29R	RA 102/12		100 DA 433	

REIL Rwys 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZ/CL Rwy 29R

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-FAT	APP CRS	Rwy Idg	8915
111.3	291°	TDZE	333
Chan 50		Apt Elev	336

ILS RWY 29R (CAT III)

FRESNO YOSEMITE INTL (FAT)

ALSF-2

MISSED APPROACH: Climb to 800, then climbing right turn to 2000 direct CZQ VORTAC and hold. (TACAN aircraft climb to 3000 via CZQ VORTAC R-307 to OXVEV/CZQ 7 DME and hold NW, RT, 127° inbound.)

ATIS	FRESNO APP CON	FRESNO TOWER	GND CON	CLNC DEL
121.35 273.6	119.6 351.95	118.2 251.1	121.7 348.6	124.35 348.6

TACAN MISSED APCH FIX

OXVEV CZQ 7

127° 307° R-307 112.9 CZQ Chan 76

CLOVIS 112.9 CZQ Chan 76

R-307 127° 307°

Radar required for terminal route CLOVIS (CZQ) VORTAC to STORI INT.

ALTERNATE MISSED APCH FIX

NIVEE FRA 8

115.6 FRA Chan 103

022° 202° R-202

2000 to STORI 122° (13)

779

10 NM

LOCALIZER 111.3 I-FAT Chan 50

554 515 505 IM

(IAF) STORI I-FAT 6.1

Maximum holding airspeed 200 KIAS

429± 484± 489± 660

291° 1 min 111°

1800 291° (6.1)

(IF) SANGO I-FAT 12.1

2108

MSA CZQ 25 NM

120° 7700 1900 300°

DME REQUIRED

2600 NoPT 291° (12)

(IAF) ALTTA I-FAT 24.1

ELEV 336

362 371 391 TDZE 333 TWR 445 363 404

07/25 X 100 9227 X 150

11L 11R 29L 29R

REIL Rwys 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZ/CL Rwy 29R

800 2000 CZQ 112.9

STORI I-FAT 6.1

One Minute Holding Pattern

1800 111° 291° 1800 1800

IM 435 291°

333 MSL

VGSI and ILS glidepath not coincident

GS 3.00° TCH 58

1050' 850' 4.3 NM

CATEGORY	A	B	C	D
S-ILS 29R	CAT IIIa	RVR 07		
S-ILS 29R	CAT IIIb	RVR 06		
S-ILS 29R	CAT IIIc	NA		

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-2, 14 JAN 2010 to 11 FEB 2010

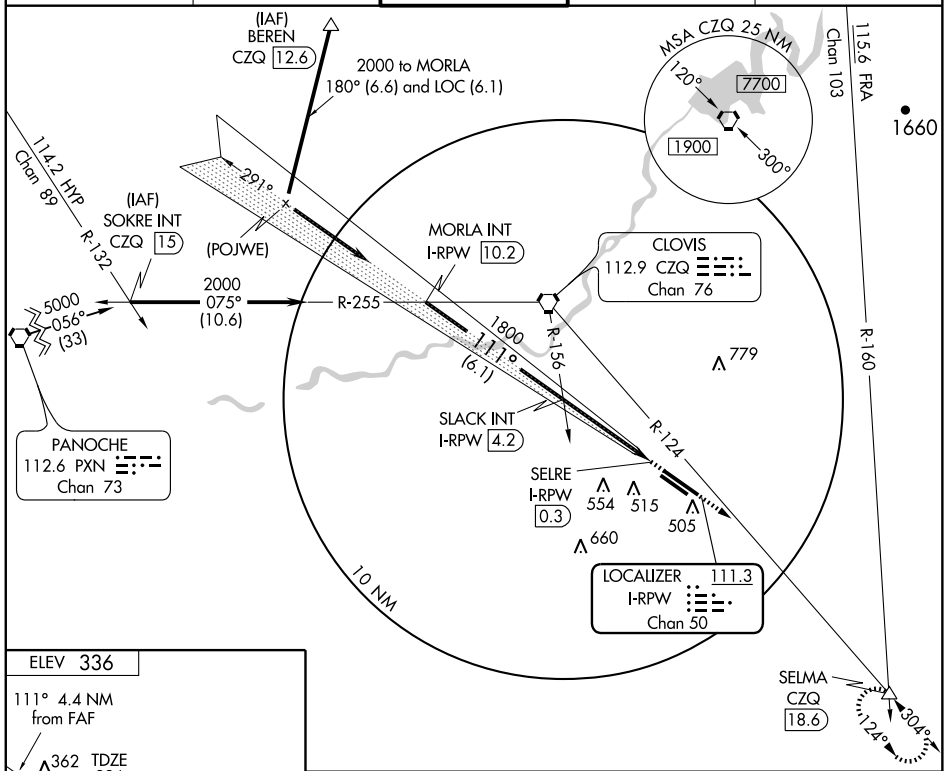
LOC/DME I-RPW	APP CRS	Rwy 11L Idg	9227	Rwy 11R Idg	5757
111.3	111°	TDZE	336	TDZE	333
Chan 50		Apt Elev	336	Apt Elev	336

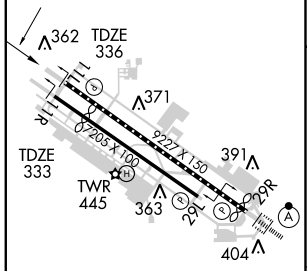
LOC RWY 11L

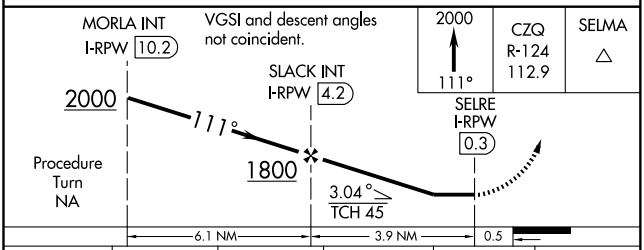
FRESNO YOSEMITE INTL (FAT)

MISSED APPROACH: Climb to 2000 via heading 111° and CZQ R-124 to SELMA and hold.

ATIS	FRESNO APP CON	FRESNO TOWER	GND CON	CLNC DEL
121.35 273.6	119.6 351.95	118.2 251.1	121.7 348.6	124.35 348.6







REIL Rwys 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZ/CL Rwy 29R

FAF to MAP 3.9 NM

Knots	60	90	120	150	180
Min:Sec	3:54	2:36	1:57	1:34	1:18

CATEGORY	A	B	C	D	E
S-11L	680/50 344 (400-1)			680/60 344 (400-1¼)	
SIDESTEP 11R	680-1 347 (400-1)		680-1½ 347 (400-1½)	680-2 347 (400-2)	
CIRCLING	820-1 484 (500-1)		820-1½ 484 (500-1½)	920-2 584 (600-2)	1140-2¾ 804 (900-2¾)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	9227
CH 77505	111°	TDZE	336
W11A		Apt Elev	336

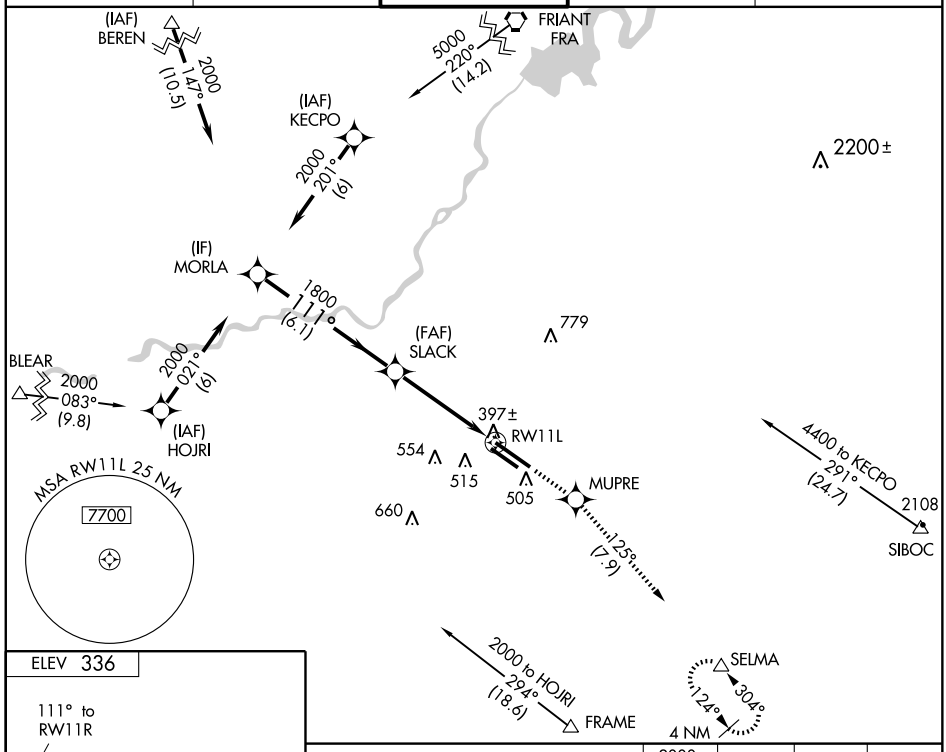
RNAV (GPS) RWY 11L

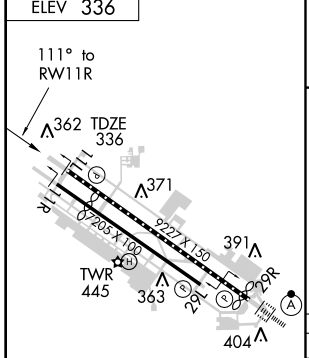
FRESNO YOSEMITE INTL (FAT)

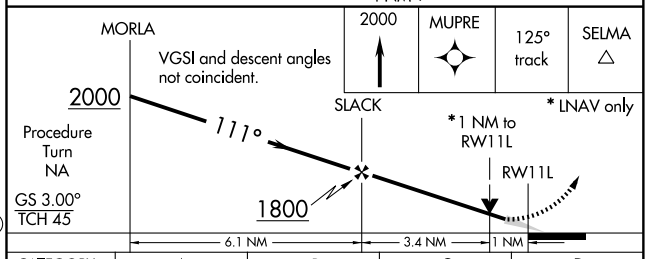
DME/DME RNP-0.3 NA.
Baro-VNAV NA below -15°C (5°F).

MISSED APPROACH: Climb to 2000 direct MUPRE and via 125° track to SELMA and hold.

ATIS	FRESNO APP CON	FRESNO TOWER	GND CON	CLNC DEL
121.35 273.6	119.6 351.95	118.2 251.1	121.7 348.6	124.35 348.6







CATEGORY	A	B	C	D
LPV DA	590/50 254 (300-1)			
LNAV/VNAV DA	760-1½ 424 (500-1½)			
LNAV MDA	680/50 344 (400-1)			680/60 344 (400-1¼)
CIRCLING	820-1 484 (500-1)		820-1½ 484 (500-1½)	920-2 584 (600-2)

REIL Rwys 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZ/CL Rwy 29R

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	5757
113°	TDZE	333
	Apt Elev	336

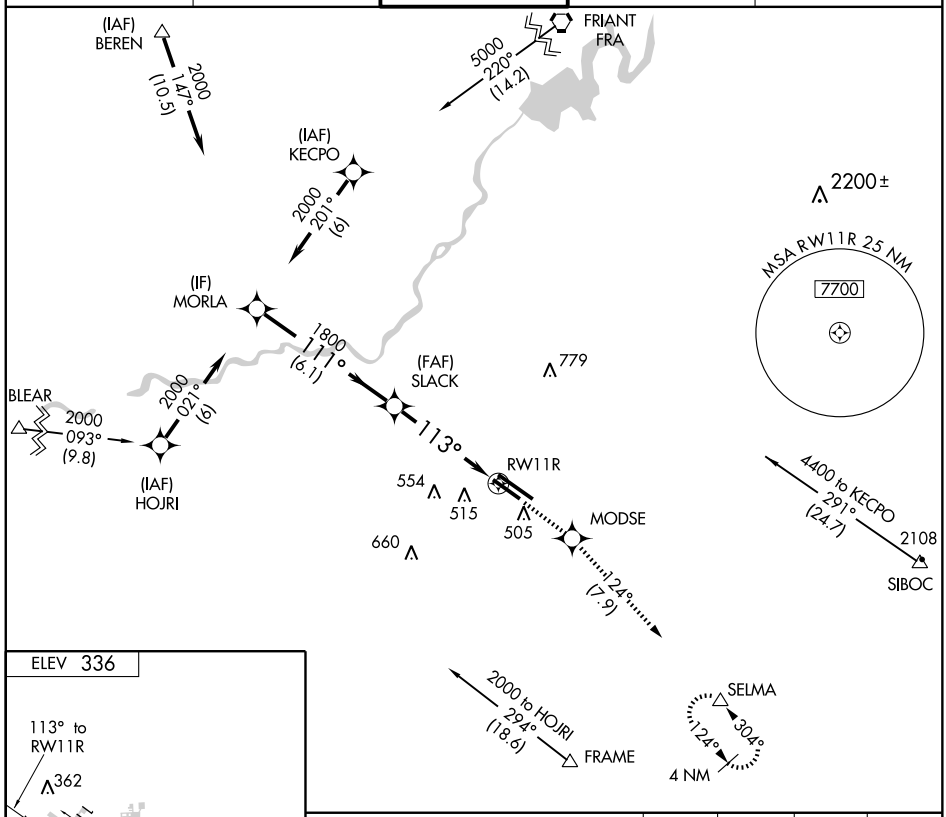
RNAV (GPS) RWY 11R

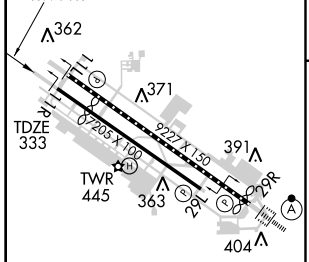
FRESNO YOSEMITE INTL (FAT)

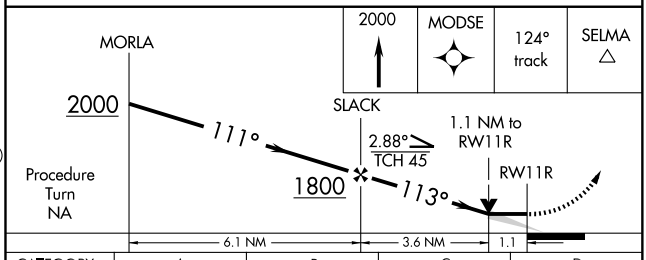
DME/DME RNP-0.3 NA.
Straight-in minimums NA at night.

MISSED APPROACH: Climb to 2000 direct MODSE and via 124° track to SELMA and hold.

ATIS	FRESNO APP CON	FRESNO TOWER	GND CON	CLNC DEL
121.35 273.6	119.6 351.95	118.2 251.1	121.7 348.6	124.35 348.6







CATEGORY	A	B	C	D
LNAV MDA	700-1 367 (400-1)			700-1¼ 367 (400-1¼)
CIRCLING	820-1 484 (500-1)		820-1½ 484 (500-1½)	920-2 584 (600-2)

REIL Rwys 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZ/CL Rwy 29R

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	7205
290°	TDZE	330
	Apt Elev	336

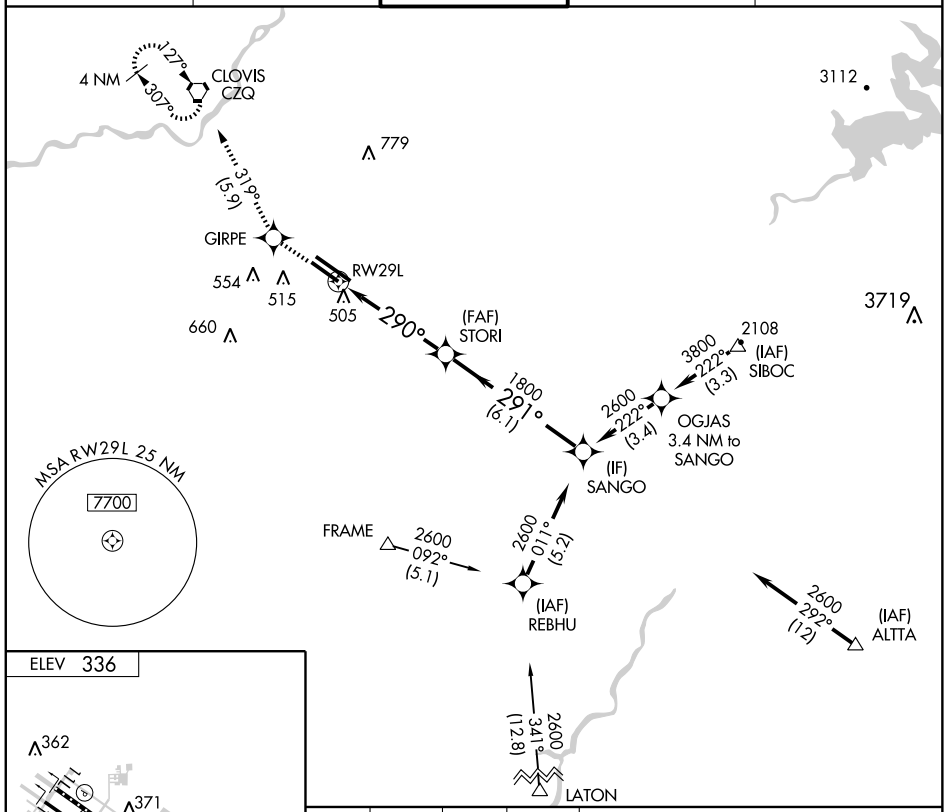
RNAV (GPS) RWY 29L

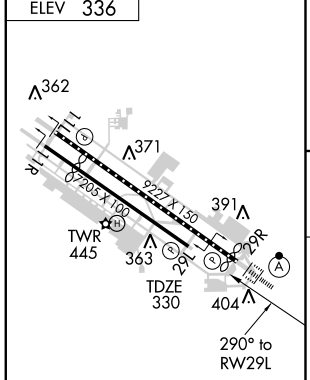
FRESNO YOSEMITE INTL (FAT)

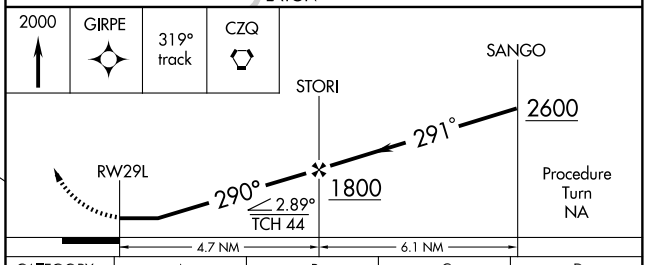
DME/DME RNP-0.3 NA.
Straight-in minimums NA at night.

MISSED APPROACH: Climb to 2000 direct GIRPE and via 319° track to CZQ VORTAC and hold.

ATIS	FRESNO APP CON	FRESNO TOWER	GND CON	CLNC DEL
121.35 273.6	119.6 351.95	118.2 251.1	121.7 348.6	124.35 348.6







CATEGORY	A	B	C	D
LNAV MDA	760-1 430 (500-1)		760-1¼ 430 (500-1¼)	760-1½ 430 (500-1½)
CIRCLING	820-1 484 (500-1)		820-1½ 484 (500-1½)	920-2 584 (600-2)

REIL Rwys 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZ/CL Rwy 29R

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 81803 W29A	APP CRS 291°	Rwy Idg 8915 TDZE 333 Apt Elev 336

RNAV (GPS) RWY 29R

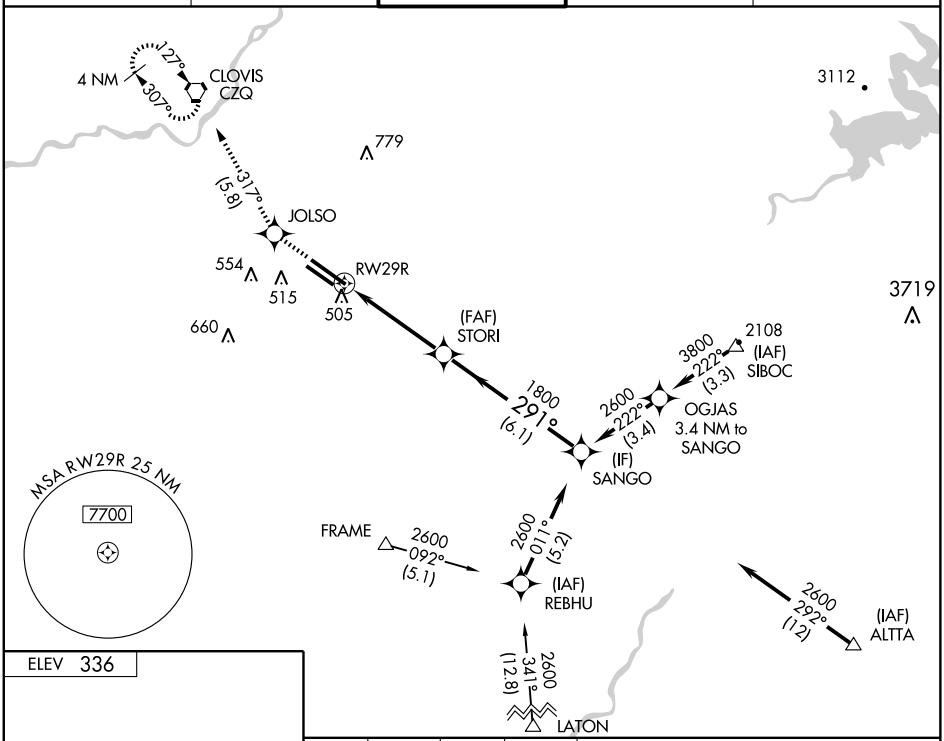
FRESNO YOSEMITE INTL (FAT)

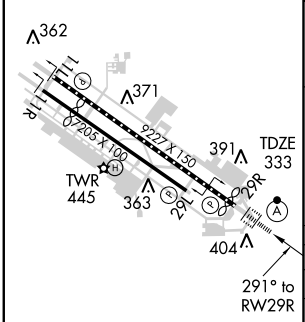
DME/DME RNP-0.3 NA.
Baro-VNAV NA below -15°C (5°F).
For inoperative ALSF-2, increase LPV visibility to RVR 4000, all Cats.

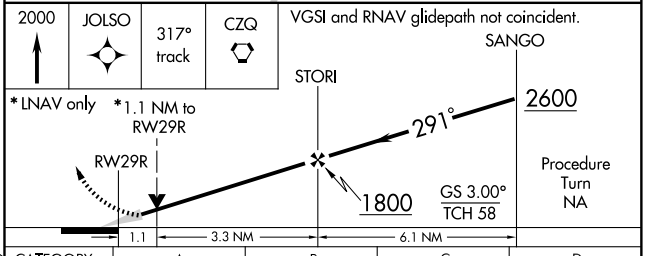
ALSF-2

MISSED APPROACH: Climb to 2000 direct JOLSO and via 317° track to CZQ VORTAC and hold.

ATIS	FRESNO APP CON	FRESNO TOWER	GND CON	CLNC DEL
121.35 273.6	119.6 351.95	118.2 251.1	121.7 348.6	124.35 348.6







CATEGORY	A	B	C	D
LPV DA	590/24 257 (300-½)			
LNAV/VNAV DA	760/50 427 (500-1)			
LNAV MDA	760/24 427 (500-½)		760/40 427 (500-¾)	760/50 427 (500-1)
CIRCLING	820-1½ 484 (500-1½)			920-2 584 (600-2)

REIL Rwys 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZ/CL Rwy 29R

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC CZQ 112.9 Chan 76	APP CRS 132°		11L	11R
		Rwy ldg	9227	5757
		TDZE	336	333
		Apt Elev	336	336

VOR/DME or TACAN RWY 11L

FRESNO YOSEMITE INTL (FAT)

MISSED APPROACH: Climbing left turn to 2000 via CZQ VORTAC R-124 to SELMA/CZQ 18.6 DME and hold.

ATIS	FRESNO APP CON	FRESNO TOWER	GND CON	CLNC DEL
121.35 273.6	119.6 351.95	118.2 251.1	121.7 348.6	124.35 348.6

(IAF) BEREN CZQ 12.6 087° R-312 267° 2700 NoPT 127° (12.6) 132°

FRIANT 115.6 FRA Chan 103

2200±

IAF CLOVIS 112.9 CZQ Chan 76

519± 132° 779

R-160

FOVOR CZQ 4

JELSA CZQ 6.9

554 515 505 660

10 NM

MSA CZQ 25 NM 120° 7700 1900 300°

R-124

SELMA CZQ 18.6 304° 124°

ELEV 336

132° 7.3 NM from FAF

362 TDZE 336 371 391

TDZE 333

9227 X 150 07-205 X 100

TWR 445 363 29L 29R 404

Remain within 15 NM VORTAC 312° 2700 132° 2700 132°

FOVOR CZQ 4 CZQ 6 JELSA CZQ 6.9

2000 CZQ R-124 SELMA

VGSI and descent angles not coincident.

2.99° TCH 45 1400

4 NM 2 NM 0.9 NM 0.4

CATEGORY	A	B	C	D	E
S-11L	800/50	464 (500-1)	800/60 464 (500-1¼)	800-1½ 464 (500-1½)	800-1¾ 464 (500-1¾)
SIDESTEP 11R	800-1	467 (500-1)	800-1½ 467 (500-1½)	800-2	467 (500-2)
CIRCLING	820-1	484 (500-1)	820-1½ 484 (500-1½)	920-2 584 (600-2)	1140-2¾ 804 (900-2¾)

REIL Rwys 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZ/CL Rwy 29R

SW-2, 14 JAN 2010 to 11 FEB 2010

FRESNO, CALIFORNIA AL-162 (FAA)

VOR/DME or TACAN RWY 29R

VORTAC CZQ 112.9 Chan 76	APP CRS 306°	Rwy 29R ldg 8915 TDZE 333 Apt Elev 336	Rwy 29L ldg 7205 TDZE 330 Apt Elev 336

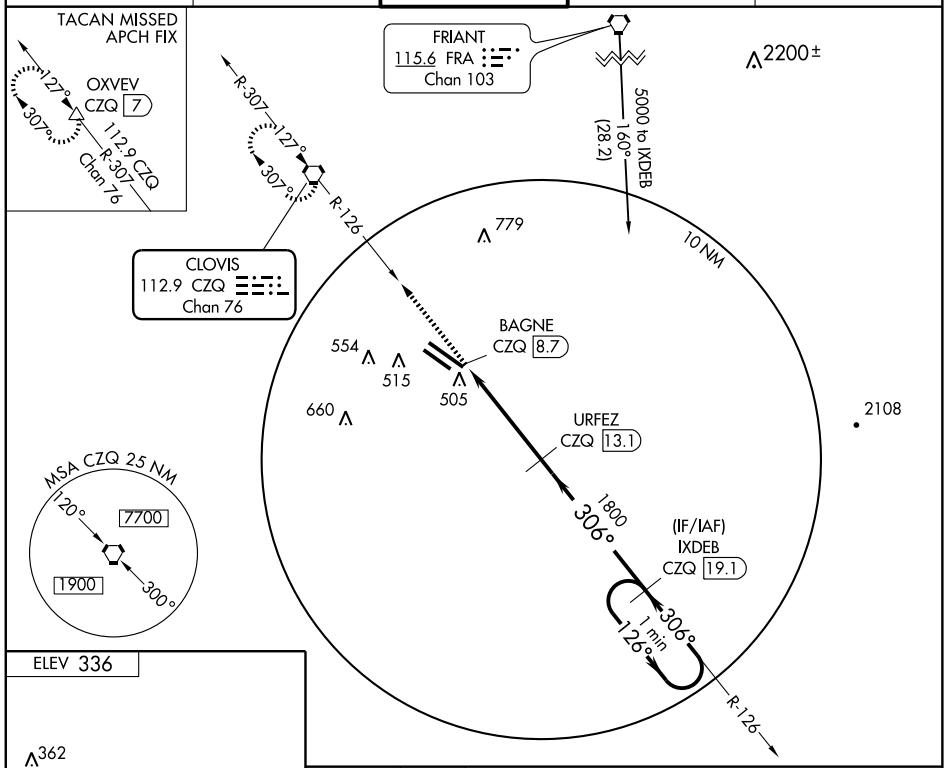
FRESNO YOSEMITE INTL (FAT)

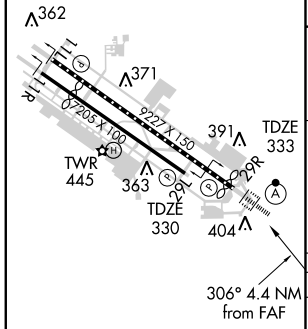
For inoperative ALSF-2, increase S-29R Cat E visibility to 1½.

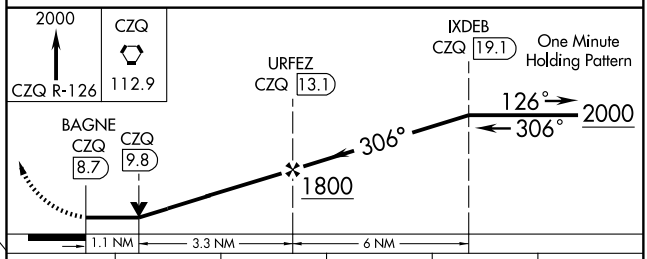
ALSF-2 Rwy 29R

MISSED APPROACH: Climb to 2000 via CZQ R-126 to CZQ VORTAC and hold. (TACAN aircraft continue climb to 3000 via CZQ R-307 to OXVEV/7 DME and hold (NW, RT, 127° inbound).

ATIS	FRESNO APP CON	FRESNO TOWER	GND CON	CLNC DEL
121.35 273.6	119.6 351.95	118.2 251.1	121.7 348.6	124.35 348.6







CATEGORY	A	B	C	D	E
S-29R	760/24 427 (500-½)		760/40 427 (500-¾)	760/50 427 (500-1)	
SIDESTEP 29L	760-1 430 (500-1)		760-1½ 430 (500-1½)	760-2 430 (500-2)	
CIRCLING	820-1 484 (500-1)		820-1½ 484 (500-1½)	920-2 584 (600-2)	1140-2¾ 804 (900-2¾)

REIL Rwys 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZ/CL Rwy 29R

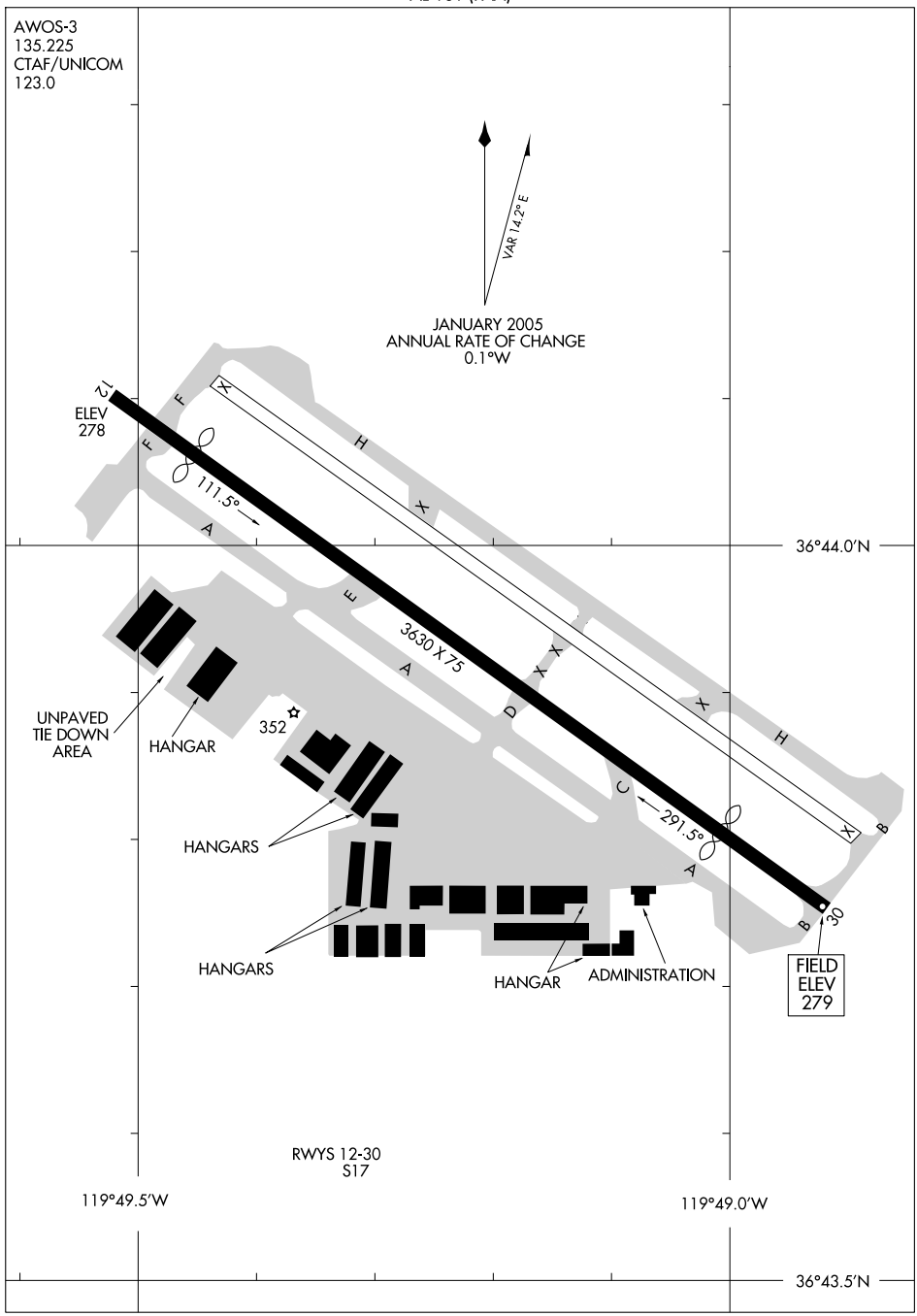
SW-2, 14 JAN 2010 to 11 FEB 2010

09071

AIRPORT DIAGRAM

AL-161 (FAA)

FRESNO CHANDLER EXECUTIVE (FCH)
FRESNO, CALIFORNIA



SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3212
111°	TDZE	279
	Apt Elev	280

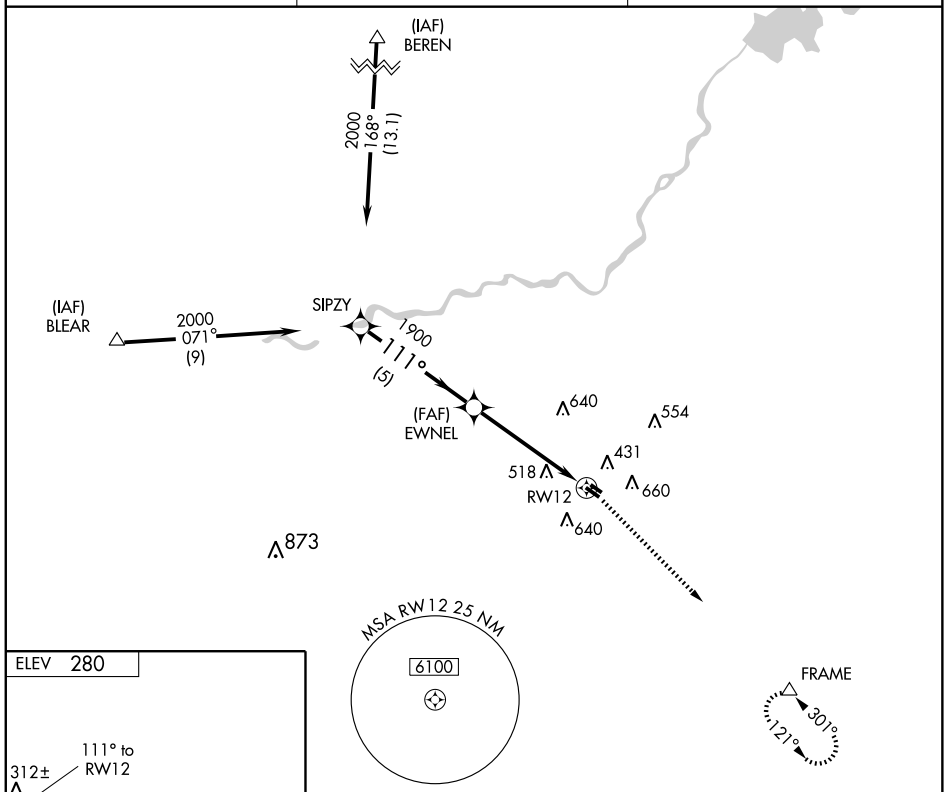
GPS RWY 12

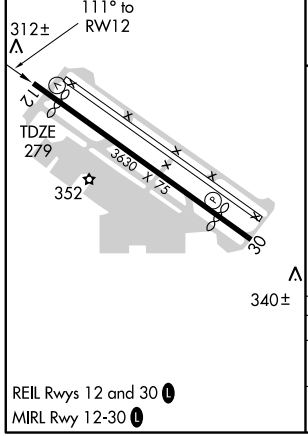
FRESNO CHANDLER EXECUTIVE (FCH)

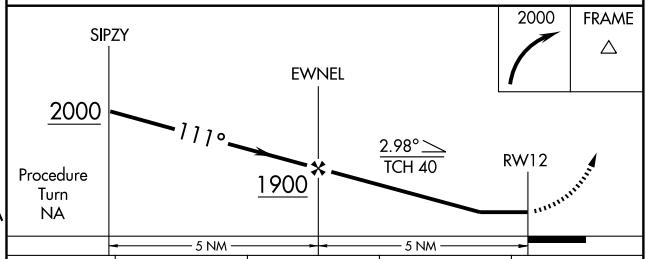
T NA — If local altimeter setting not received, use Fresno Yosemite Intl altimeter setting and increase all MDAs 20 feet.

MISSED APPROACH: Climbing right turn to 2000 direct FRAME WP and hold.

AWOS-3	FRESNO APP CON	UNICOM
135.225	119.0 323.25	123.0 (CTAF) L







CATEGORY	A	B	C	D
S-12	820-1	541 (600-1)	820-1½ 541 (600-1½)	NA
CIRCLING	1020-1	740 (800-1)	1020-2 740 (800-2)	NA

REIL Rwys 12 and 30 L
MIRL Rwy 12-30 L

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3090
301°	TDZE	279
	Apt Elev	280

GPS RWY 30

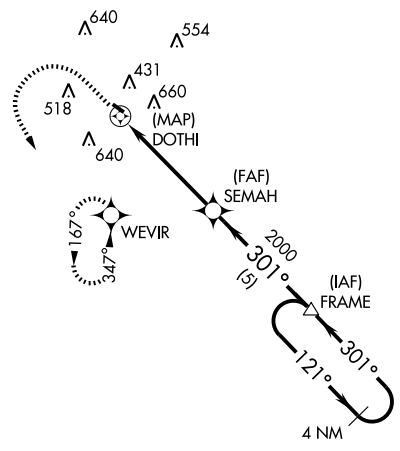
FRESNO CHANDLER EXECUTIVE (FCH)

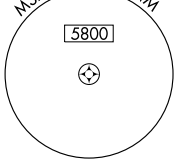
NA — If local altimeter setting not received, use Fresno Yosemite Intl altimeter setting and increase all MDAs 20 feet.

MISSED APPROACH: Climb to 1000 then climbing left turn to 2000 direct WEVIR WP and hold.

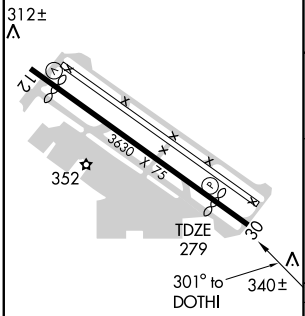
AWOS-3	FRESNO APP CON	UNICOM
135.225	119.0 323.25	123.0 (CTAF) L

NoPT for arrival at FRAME on V23 northwest bound.

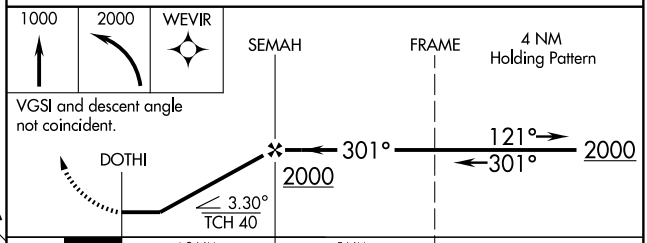




ELEV 280



REIL Rwys 12 and 30 L
MIRL Rwy 12-30 L



CATEGORY	A	B	C	D
S-30	900-1	621 (700-1)	900-1¾ 621 (700-1¾)	NA
CIRCLING	1020-1	740 (800-1)	1020-2 740 (800-2)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

NDB FCH 344	APP CRS 030°	Rwy Idg N/A TDZE N/A Apt Elev 280

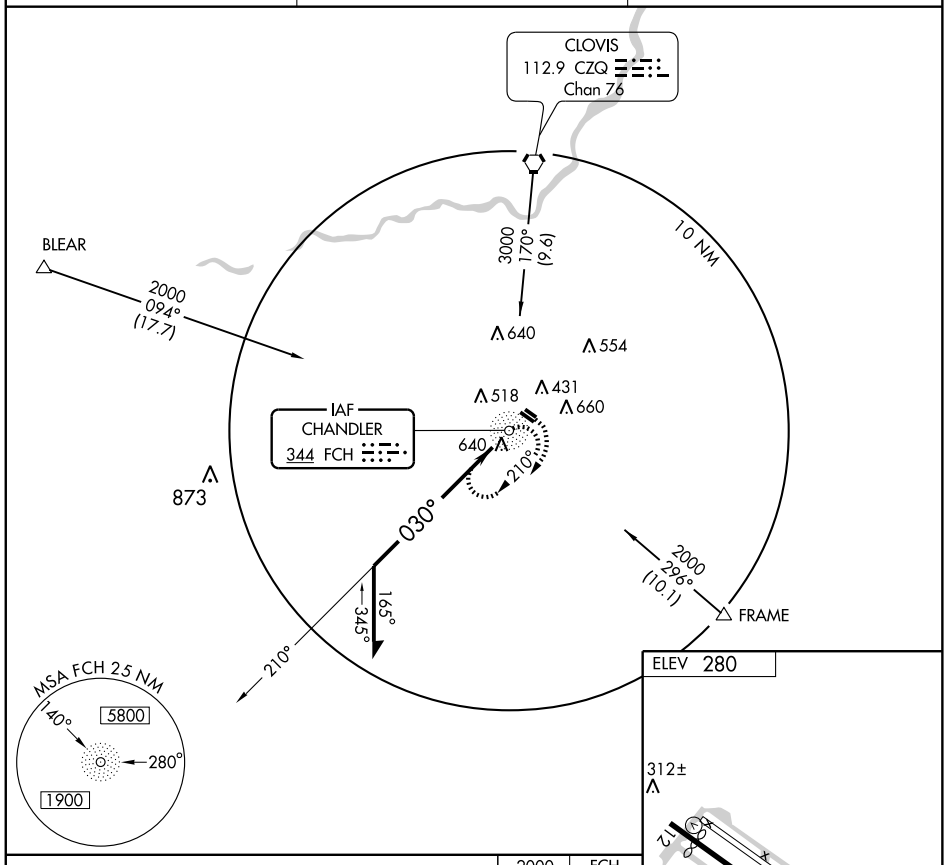
NDB or GPS-B

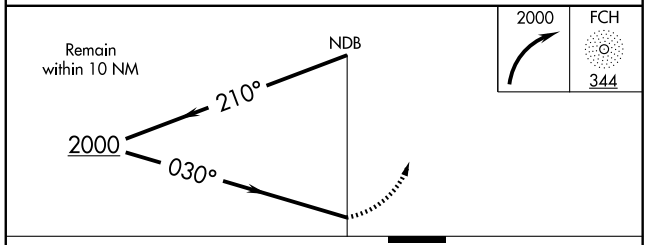
FRESNO CHANDLER EXECUTIVE (FCH)

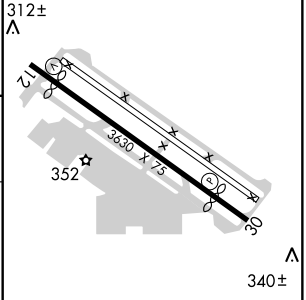
T NA If local altimeter setting not received, use Fresno Yosemite Intl altimeter setting and increase MDA 20 feet.

MISSED APPROACH: Climbing right turn to 2000 in FCH NDB holding pattern.

AWOS-3	FRESNO APP CON	UNICOM
135.225	119.0 323.25	123.0 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	1020-1	740 (800-1)	1020-2 740 (800-2)	NA

REIL Rwys 12 and 30 L
MIRL Rwy 12-30 L

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC CZQ	APP CRS	Rwy Idg	N/A
112.9	347°	TDZE	N/A
Chan 76		Apt Elev	280

VOR/DME or GPS-C

FRESNO CHANDLER EXECUTIVE (FCH)

If local altimeter setting not received, use Fresno Yosemite Intl altimeter setting and increase MDA 20 feet.

MISSED APPROACH: Climbing left turn to 2000 via R-167 to WEVIR 12.8 DME and hold.

AWOS-3	FRESNO APP CON	UNICOM
135.225	119.0 323.25	123.0 (CTAF) L

CLOVIS
112.9 CZQ
Chan 76

(IAF)
BLEAR

3000 to WEVIR
167° (12.8)

10 NM

640
554
431
518
660
640
873
(MAPVC)

(IAF)
WEVIR
CZQ 12.8

167°
1 min
347°

1800
347° (5.2)

(IAF)
FRAME

2000 NoPT
CZQ 18 Arc

2000 NoPT
CZQ 18 Arc

(IKOGY)

R-167

MSA CZQ 25 NM
120°
8000
1900
300°

ELEV 280

REIL Rwys 12 and 30 L
MIRL Rwy 12-30 L

312±

3630 X 75

352

347° 3.6 NM
from FAF

340±

One Minute
Holding Pattern

WEVIR
CZQ 12.8

1800
167°
347°

(MAPVC)
CZQ 9.2

347°

3.6 NM

2000
CZQ
R-167

WEVIR
CZQ
12.8

CATEGORY	A	B	C	D
CIRCLING	1020-1	740 (800-1)	1020-2 740 (800-2)	NA

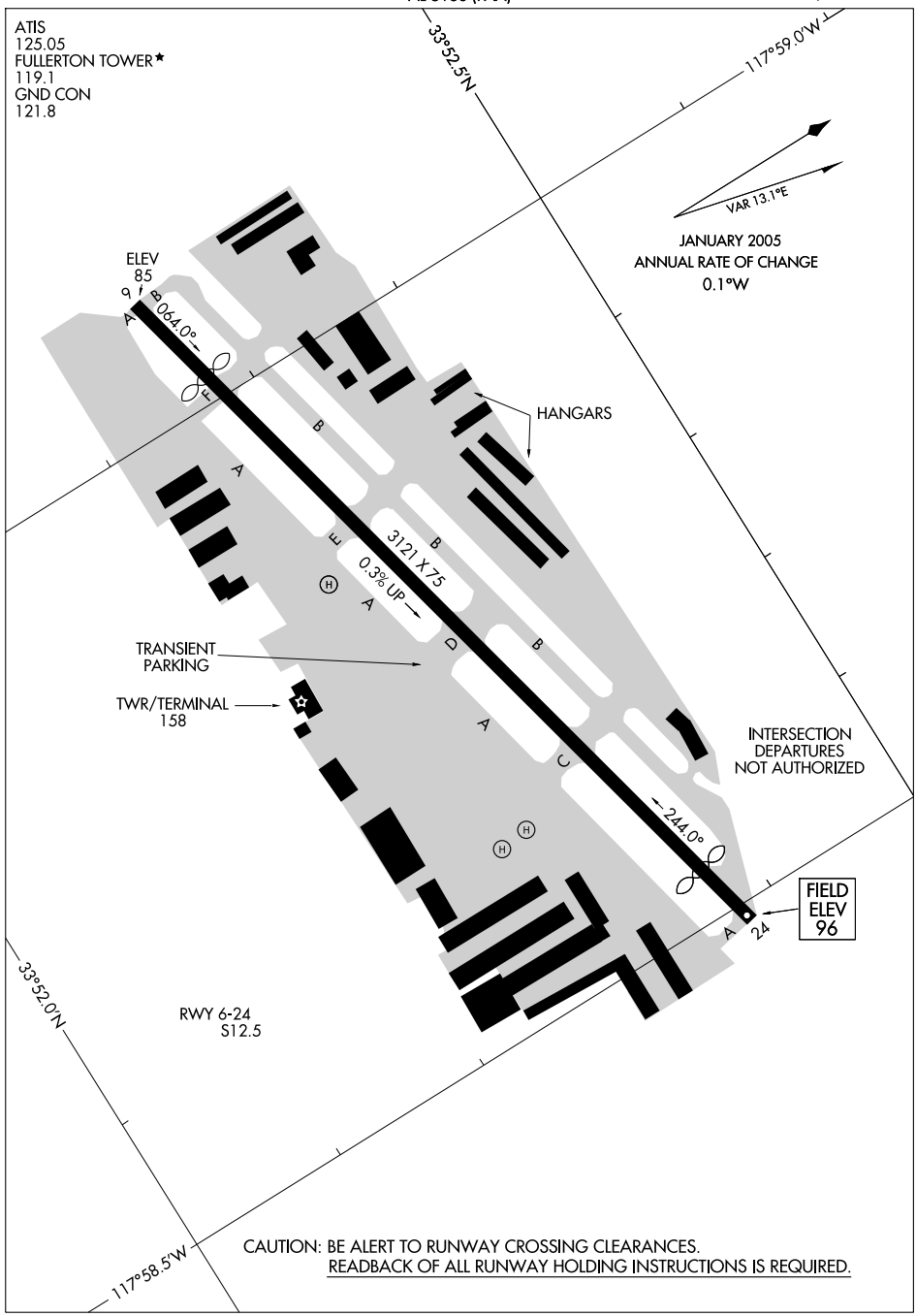
SW-2, 14 JAN 2010 to 11 FEB 2010

09295

AIRPORT DIAGRAM

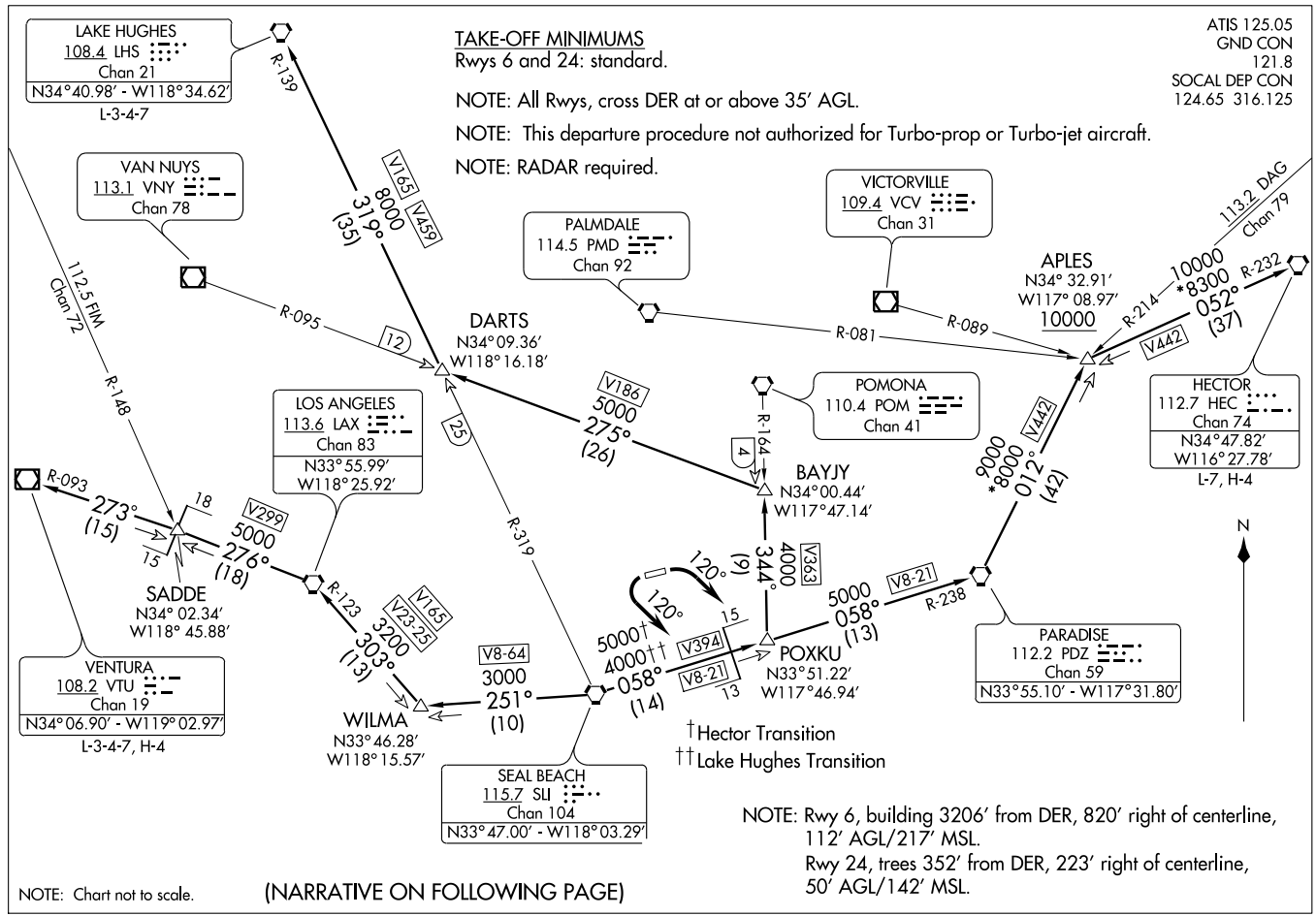
AL-5136 (FAA)

FULLERTON MUNI (FUL)
FULLERTON, CALIFORNIA



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

SW-3, 14 JAN 2010 to 11 FEB 2010


ANAHEIM THREE DEPARTURE (ANAHM3.SLI) 09015
FULLERTON MUNI (FUL)
FULLERTON, CALIFORNIA
SL-5136 (FAA)
ATIS 125.05
GND CON 121.8
SOCAL DEP CON 124.65 316.125
TAKE-OFF MINIMUMS
Rwys 6 and 24: standard.
NOTE: All Rwys, cross DER at or above 35' AGL.
NOTE: This departure procedure not authorized for Turbo-prop or Turbo-jet aircraft.
NOTE: RADAR required.
LAKE HUGHES
108.4 LHS
Chan 21
N34°40.98' - W118°34.62'
L-3-4-7
VAN NUYS
113.1 VNY
Chan 78
PALMDALE
114.5 PMD
Chan 92
VICTORVILLE
109.4 VCV
Chan 31
113.2 DAG
Chan 79
112.5 FIM
Chan 72
DARTS
N34°09.36'
W118°16.18'
APLES
N34° 32.91'
W117° 08.97'
10000
HECTOR
112.7 HEC
Chan 74
N34°47.82'
W116°27.78'
L-7, H-4
POMONA
110.4 POM
Chan 41
LOS ANGELES
113.6 LAX
Chan 83
N33°55.99'
W118°25.92'
BAYJY
N34°00.44'
W117°47.14'
SADDE
N34° 02.34'
W118° 45.88'
PARADISE
112.2 PDZ
Chan 59
N33°55.10' - W117°31.80'
VENTURA
108.2 VTU
Chan 19
N34°06.90' - W119°02.97'
L-3-4-7, H-4
POXKU
N33°51.22'
W117°46.94'
WILMA
N33°46.28'
W118°15.57'
SEAL BEACH
115.7 SLI
Chan 104
N33°47.00' - W118°03.29'
R-139
V165
V459
8000
319°
(35)
R-095
12
R-081
R-089
V442
10000
*8300
052°
(37)
R-232
R-214
V186
5000
275°
(26)
25
R-319
R-164
4
V442
9000
*8000
012°
(42)
R-093
273°
(15)
18
15
V299
5000
276°
(18)
R-123
V165
V23-25
3200
303°
(13)
R-148
V363
4000
344°
(9)
120°
120°
5000†
4000††
058°
(14)
V394
V8-21
13
15
V8-64
3000
251°
(10)
V8-21
5000
058°
(13)
R-238
†Hector Transition
††Lake Hughes Transition
NOTE: Rwy 6, building 3206' from DER, 820' right of centerline, 112' AGL/217' MSL.
Rwy 24, trees 352' from DER, 223' right of centerline, 50' AGL/142' MSL.
NOTE: Chart not to scale.
(NARRATIVE ON FOLLOWING PAGE)
N

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 6: Turn right heading 120° for radar vectors to SLI VORTAC. Thence. . . .

TAKE-OFF RUNWAY 24: Turn left heading 120° for radar vectors to SLI VORTAC. Thence. . . .

. . . .via (transition) or (assigned route). Maintain 2000 feet. Expect clearance to filed altitude 10 minutes after departure.

HECTOR TRANSITION (ANAHM3.HEC): From over SLI VORTAC via SLI R-058 and PDZ R-238 to PDZ VORTAC, then via PDZ R-012 and HEC R-232 to HEC VORTAC.

LAKE HUGHES TRANSITION (ANAHM3.LHS): From over SLI VORTAC via SLI R-058 and PDZ R-238 to POXKU INT, then via POM R-164 to BAYJY INT, then via VNY R-095 to DARTS INT. Thence via SLI R-319 and LHS R-139 to LHS VORTAC.

VENTURA TRANSITION (ANAHM3.VTU): From over SLI VORTAC via SLI R-251 to WILMA INT, then via LAX R-123 to LAX VORTAC, then via LAX R-276 and VTU R-093 to VTU VOR/DME.

SW-3, 14 JAN 2010 to 11 FEB 2010

KAYOH FOUR ARRIVAL

SOCAL APP CON
133.85 346.35
FULLERTON MUNI ATIS
125.05
LONG BEACH ATIS
127.75
ORANGE COUNTY ATIS
126.0
TORRANCE MUNI ATIS
125.6

HECTOR TRANSITION (HEC.KAYOH4): From over HEC VORTAC via HEC R-211 and PDZ R-030 to DAWNA INT, then via HDF R-353 to HDF VOR then via HDF R-257 and SLI R-075 to KAYOH INT. Thence....

PALM SPRINGS TRANSITION (PSP.KAYOH4): From over PSP VORTAC via PSP R-260 to BANDS INT, then via HDF R-054 to HDF VOR, then via HDF R-257 and SLI R-075 to KAYOH INT. Thence....

....From over KAYOH INT via SLI R-075 to SLI VORTAC.

Expect radar vectors to final approach course.

HECTOR
112.7 HEC
Chan 74
N34°47.82′
W116°27.78′
L-7, H-4

V8-21-283-587
10,500
211°
(46)

31
44

DAWNA
N34°15.90′-W117°06.78′
VERTICAL NAVIGATION PLANNING INFORMATION
Turbojet: Expect clearance to cross at 13,000′.
Non-Turbojet: Expect clearance to cross at 12,000′.

PARADISE
112.2 PDZ
Chan 59

29

R-030

V283-587
10,500
173°
(29)

POMONA
110.4 POM
Chan 41

KAYOH
N33°46.82′
W117°35.41′
VERTICAL NAVIGATION PLANNING INFORMATION
210K

FULLERTON MUNI

LONG BEACH (DAUGHERTY FIELD)

R-164

R-185

R-154

R-353

V283-372

8000
257°
(16)

19

24

(5)

23

6000
255°
(9)

R-075 4000
(14)

ZAMPERINI FIELD

LOS ALAMITOS AAF

JOGIT
N33°46.91′
W117°46.85′

JOHN WAYNE ARPT-ORANGE COUNTY

DEJAY
N33°46.77′
W117°29.86′

VERTICAL NAVIGATION PLANNING INFORMATION
Expect to cross at or above 8000′.

HOMELAND
113.4 HDF
N33°46.58′-W117°11.12′

R-054

V372
8000
234°
(18)

13,000
260°
(21)

V16-370-372

BANDS
N33°53.38′-W116°50.97′
VERTICAL NAVIGATION PLANNING INFORMATION
Expect clearance to cross at 14,000′.

R-021

SEAL BEACH
115.7 SLI
Chan 104
N33°47.00′-W118°03.29′

PALM SPRINGS
115.5 PSP
Chan 102
N33°52.20′-W116°25.79′
L-4, H-4

OCEANSIDE
115.3 OCN
Chan 100

N

NOTE: Chart not to scale.

FULLERTON, CALIFORNIA

AL-5136 (FAA)

LOC/DME I-FUL	APP CRS	Rwy Idg	2868
108.9	243°	TDZE	95
Chan 26		Apt Elev	96

LOC/DME RWY 24

FULLERTON MUNI (FUL)

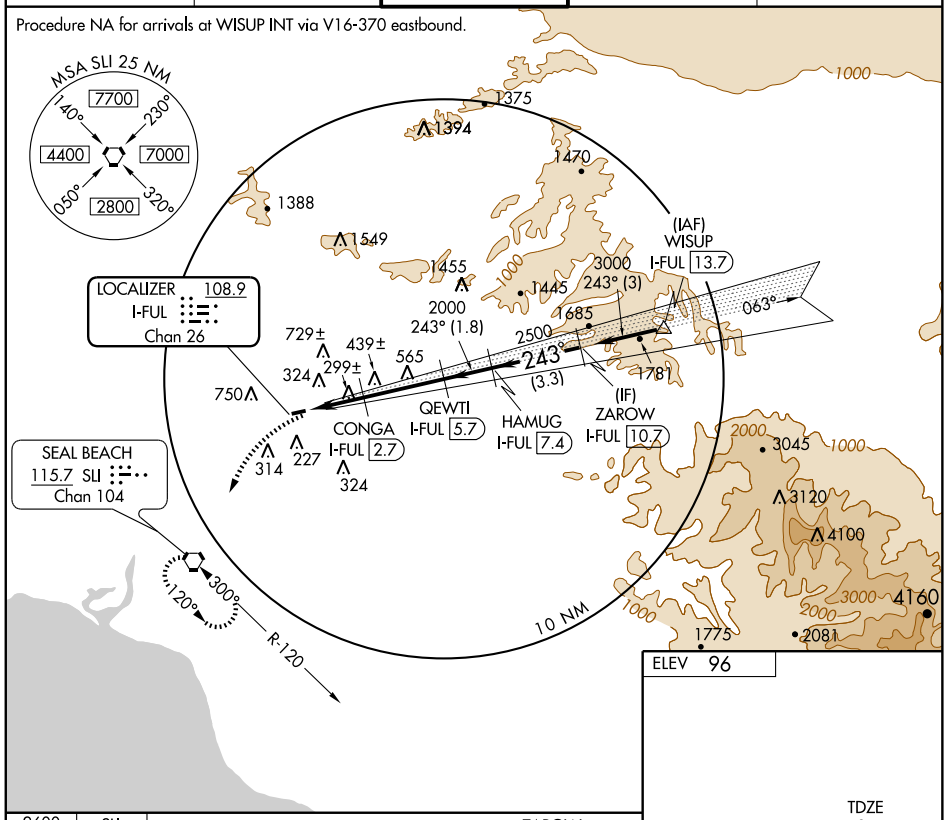
Inoperative table does not apply.

MALSR

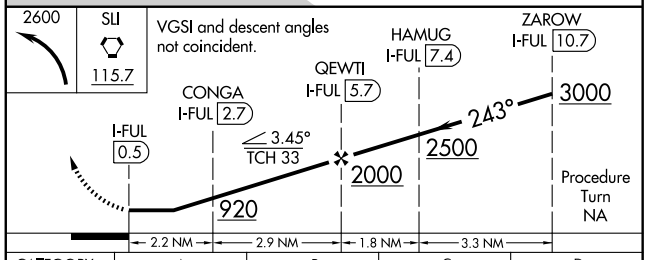
MISSED APPROACH: Climbing left turn to 2600 direct SLI VORTAC and hold.

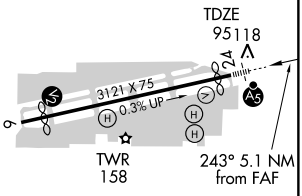
ATIS	SOCAL APP CON	FULLERTON TOWER ★	GND CON	UNICOM
125.05	124.65 316.125	119.1 (CTAF) L	121.8	122.95

Procedure NA for arrivals at WISUP INT via V16-370 eastbound.



ELEV 96





CATEGORY	A	B	C	D
S-24	560-1 465 (500-1)		NA	
CIRCLING	760-1 664 (700-1)	820-1 724 (800-1)	NA	

MIRL Rwy 6-24 L

REIL Rwys 6 and 24 L

SW-3, 14 JAN 2010 to 11 FEB 2010

FULLERTON, CALIFORNIA AL-5136 (FAA)

RNAV (GPS) RWY 24

FULLERTON MUNI (FUL)

APP CRS	Rwy Idg	2868
243°	TDZE	95
	Apt Elev	96

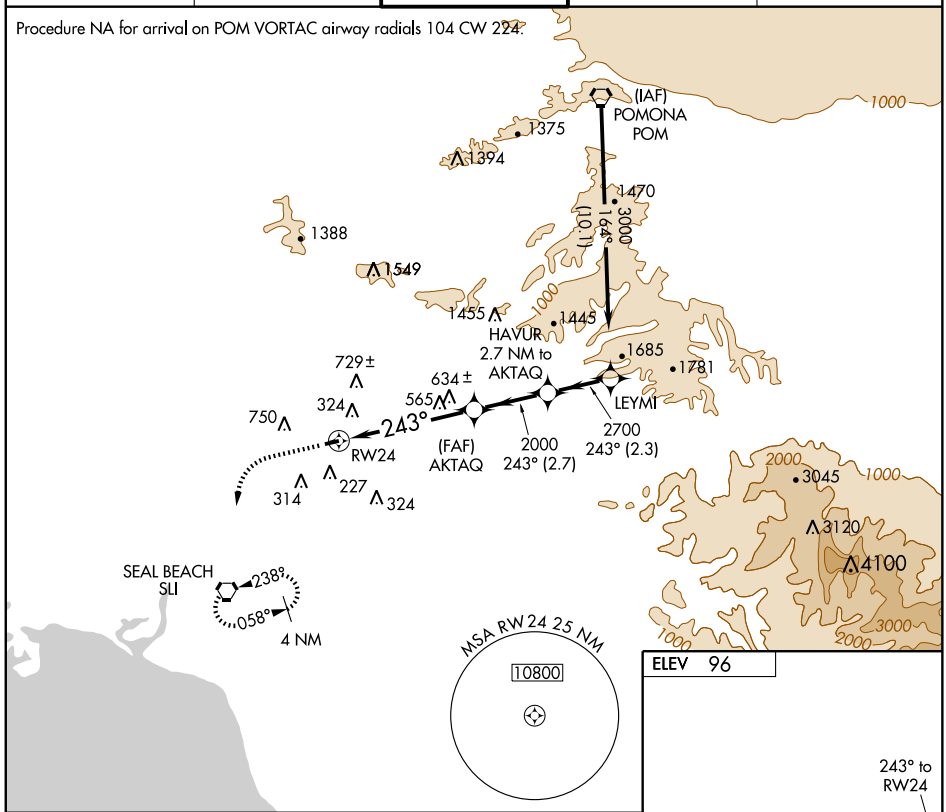
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.
NA

MALSR

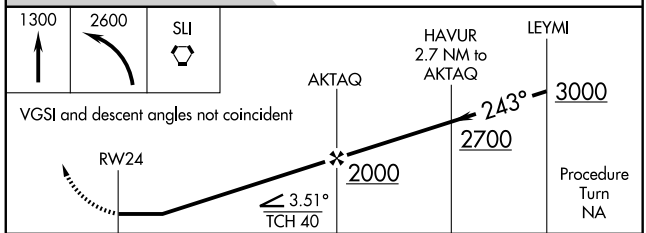
MISSED APPROACH: Climb to 1300, then climbing left turn to 2600 direct SLI VORTAC and hold.

ATIS	SOCAL APP CON	FULLERTON TOWER ★	GND CON	UNICOM
125.05	124.65 316.125	119.1 (CTAF) L	121.8	122.95

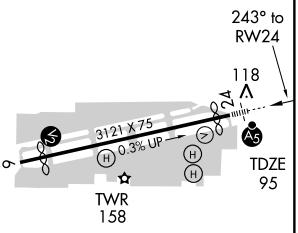
Procedure NA for arrival on POM VORTAC airway radials 104 CW 224.



ELEV 96



VGSI and descent angles not coincident



CATEGORY	A	B	C	D
LNAV MDA	900-1 805 (900-1)	900-1¼ 805 (900-1¼)	NA	
CIRCLING	900-1 804 (900-1)	900-1¼ 804 (900-1¼)	NA	

MIRL Rwy 6-24 L
REIL Rwys 6 and 24 L

SW-3, 14 JAN 2010 to 11 FEB 2010

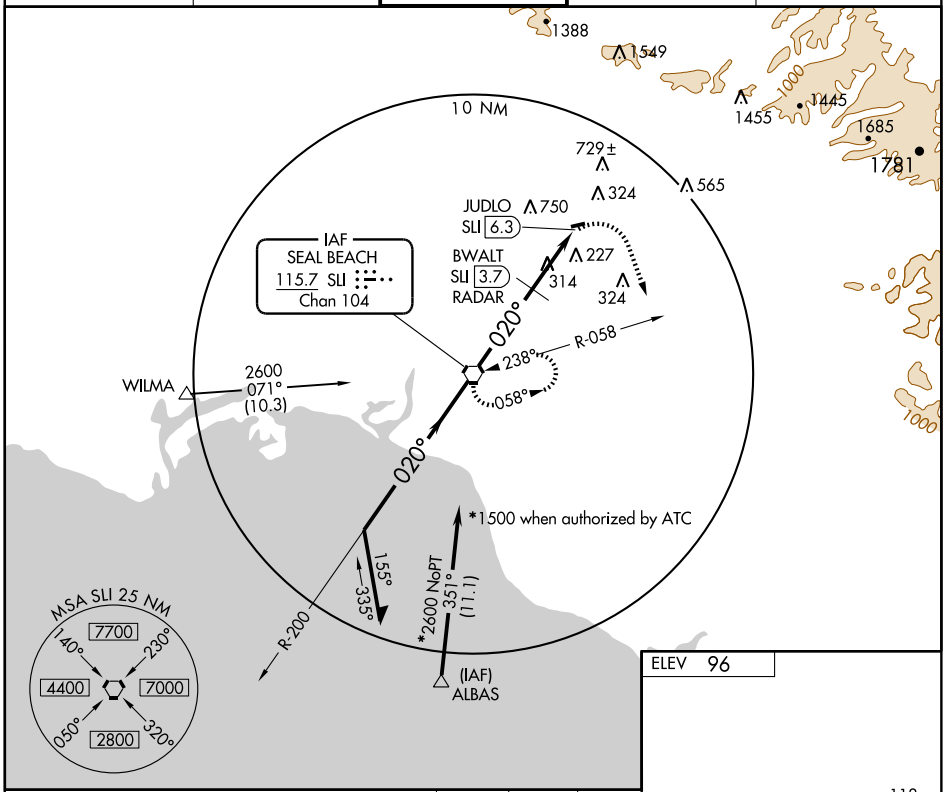
VORTAC SLI 115.7 Chan 104	APP CRS 020°	Rwy Idg N/A TDZE N/A Apt Elev 96

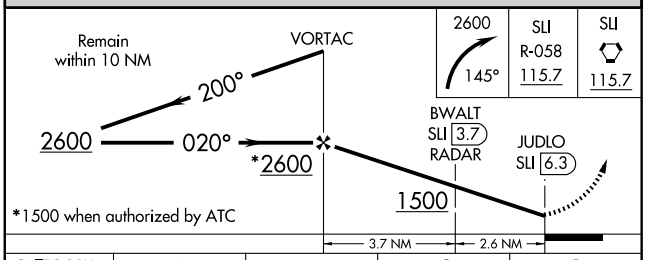
VOR-A
FULLERTON MUNI (FUL)

Maximum entry altitude 6000.

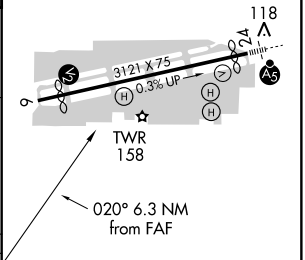
MISSED APPROACH: Climbing right turn to 2600 via heading 145° and SLI R-058 to SLI VORTAC and hold.

ATIS	SOCAL APP CON	FULLERTON TOWER*	GND CON	UNICOM
125.05	124.65 316.125	119.1 (CTAF) L	121.8	122.95





2600 / 145°	SLI R-058 115.7	SLI 115.7



MIRL Rwy 6-24 L
REIL Rwys 6 and 24 L

CATEGORY	A	B	C	D
CIRCLING	1500-1¼ 1404 (1500-1¼)	1500-1½ 1404 (1500-1½)	NA	

BWALT FIX MINIMUMS

CIRCLING	740-1 644 (700-1)	760-1 664 (700-1)	NA

FAF to MAP 6.3 NM

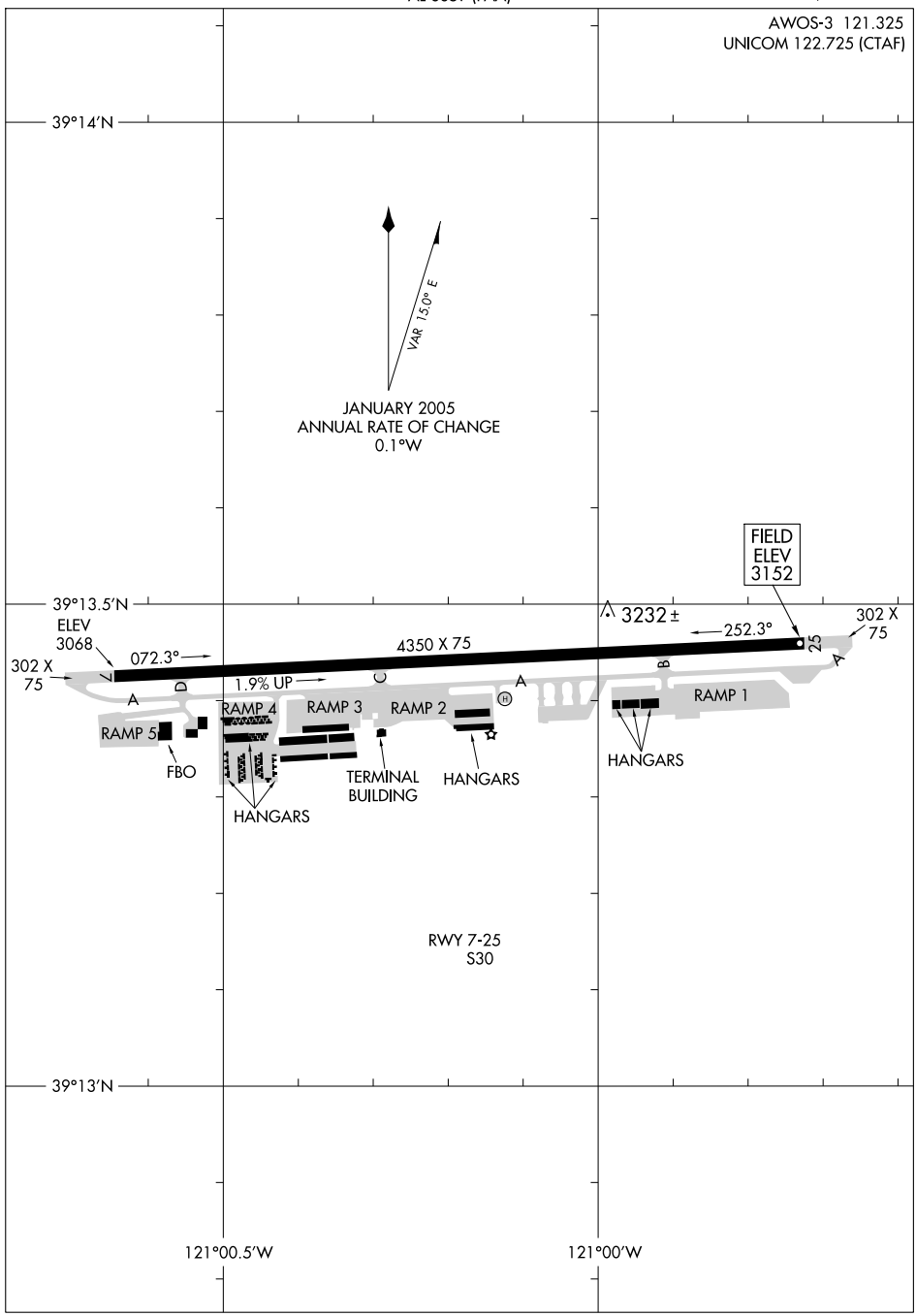
Knots	60	90	120	150	180
Min:Sec	6:18	4:12	3:09	2:31	2:06

SW-3, 14 JAN 2010 to 11 FEB 2010

06327

AIRPORT DIAGRAM

GRASS VALLEY/ NEVADA COUNTY AIRPARK (GOO)
GRASS VALLEY, CALIFORNIA
AL-6659 (FAA)



SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	4350
071°	TDZE	3128
	Apt Elev	3152

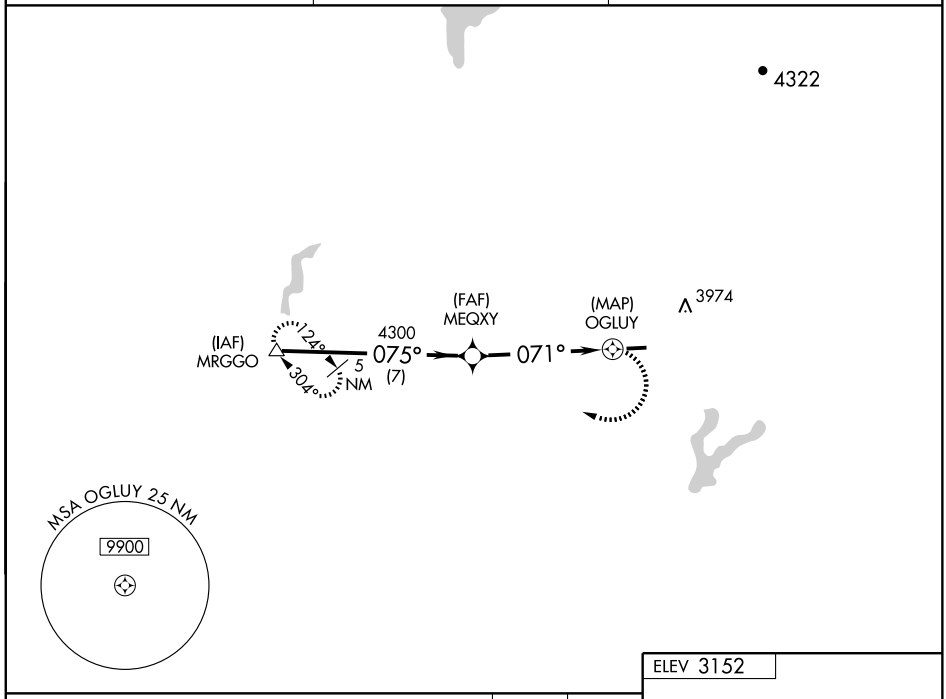
GPS RWY 7

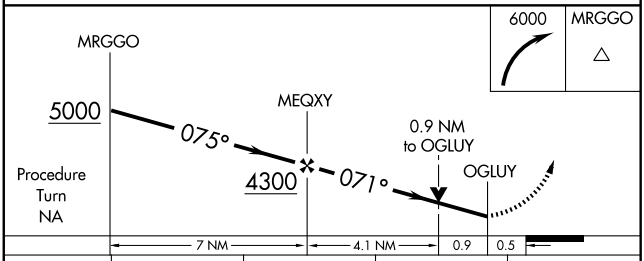
GRASS VALLEY/ NEVADA COUNTY AIR PARK(GOO)

When local altimeter setting not received, use Emigrant Gap altimeter setting.
Circling not authorized north of Rwy 7-25.

MISSED APPROACH: Climbing right turn to 6000 direct MRGGO WP and hold.

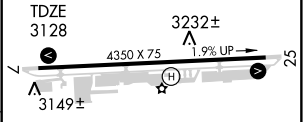
AWOS-3	NORCAL APP CON	UNICOM
121.325	125.4 259.1	122.725 (CTAF) L





CATEGORY	A	B	C	D
S-7	3540-1	412 (400-1)	3540-1¼ 412 (400-1¼)	NA
CIRCLING	3680-1	528 (600-1)	3680-1½ 528 (600-1½)	NA
EMIGRANT GAP ALTIMETER SETTING MINIMUMS				
S-7	3880-1 752 (800-1)	3880-1¼ 752 (800-1¼)	3880-2¼ 752 (800-2¼)	NA
CIRCLING	4020-1 868 (900-1)	4020-1¼ 868 (900-1¼)	4020-2½ 868 (900-2½)	NA

ELEV 3152



REIL Rwys 7 and 25
MIRL Rwy 7-25 L

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME MYV	APP CRS	Rwy Idg	N/A
110.8	058°	TDZE	N/A
Chan 45		Apt Elev	3152

VOR or GPS-A

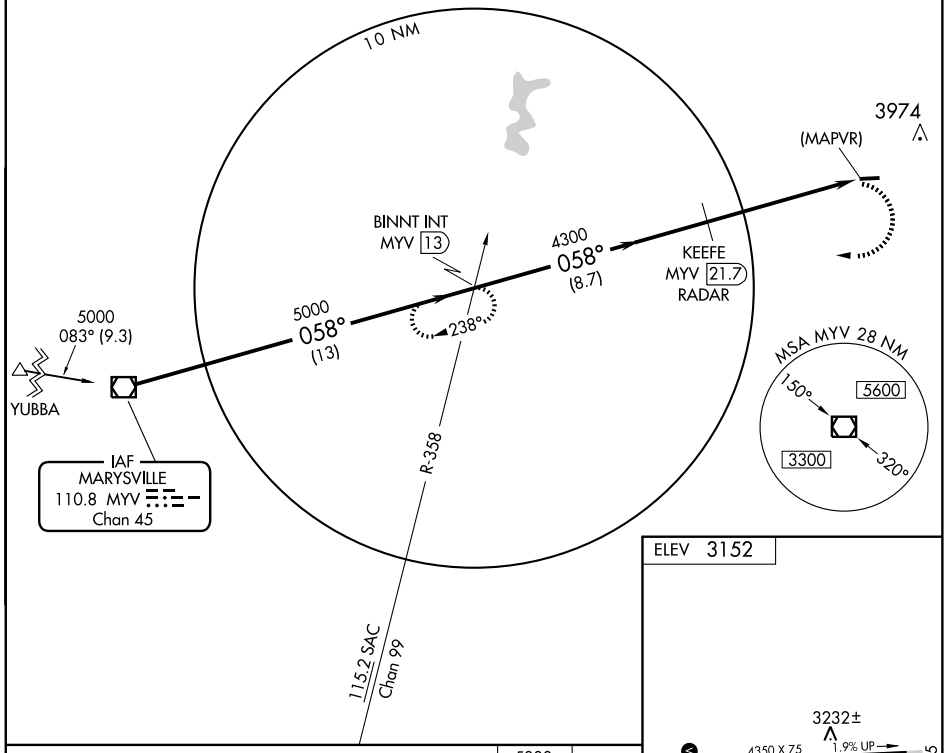
GRASS VALLEY/ NEVADA COUNTY AIR PARK (GOO)

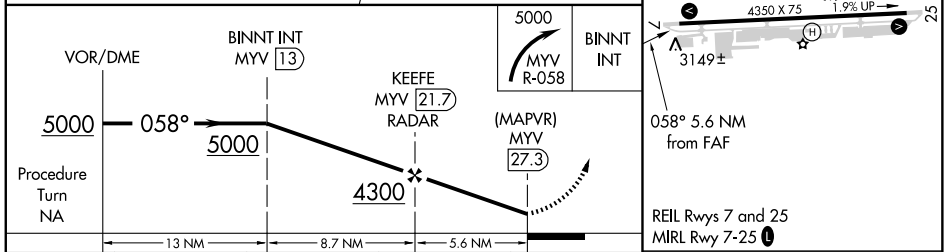
T NA — When local altimeter setting not received, use Emigrant Gap altimeter setting. Circling not authorized north of Rwy 7-25.

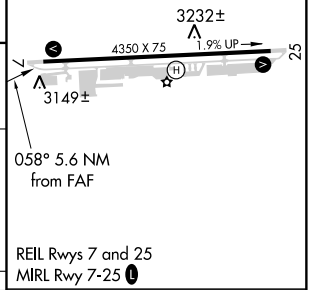
MISSED APPROACH: Climbing right turn to 5000 via MYV R-058 to BINNT Int/MYV 13 DME and hold.

AWOS-3	NORCAL APP CON	UNICOM
121.325	125.4 259.1	122.725 (CTAF) L

DME or RADAR REQUIRED







REIL Rwys 7 and 25
MIRL Rwy 7-25 L

CATEGORY	A	B	C	D
CIRCLING	4280-1¼ 1128 (1200-1¼)	4280-1½ 1128 (1200-1½)	4280-3 1128 (1200-3)	NA

FAF to MAP 5.6 NM

Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52

SW-2, 14 JAN 2010 to 11 FEB 2010

GROVELAND, CALIFORNIA

APP CRS	Rwy Idg	3625
291°	TDZE	2930
	Apt Elev	2930

AL-9084 (FAA)

GPS RWY 27

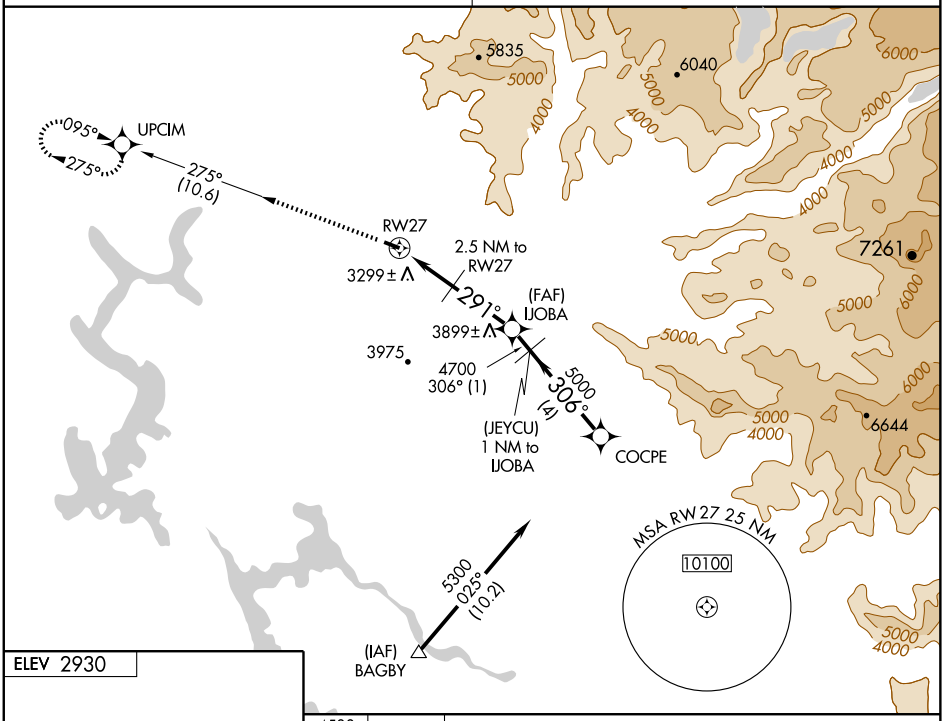
GROVELAND/ PINE MOUNTAIN LAKE (E45)

NA

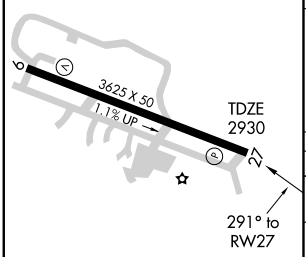
Obtain local altimeter setting on CTAF; when not received, use Columbia altimeter setting.

MISSED APPROACH: Climb to 4500 via 275° course to UPCIM WP and hold.

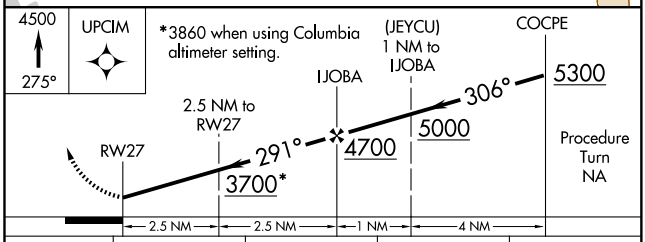
OAKLAND CENTER	CTAF
121.25 327.0	122.9 L



ELEV 2930



MIRL Rwy 9-27 L



CATEGORY	A	B	C	D
S-27	3560-1	630 (700-1)	NA	
CIRCLING	3560-1 630 (700-1)	3700-1¼ 770 (800-1¼)	NA	
COLUMBIA ALTIMETER SETTING MINIMUMS				
S-27	3700-1 770 (800-1)	3700-1¼ 770 (800-1¼)	NA	
CIRCLING	3700-1 770 (800-1)	3860-1¼ 930 (1000-1¼)	NA	

SW-2, 14 JAN 2010 to 11 FEB 2010

GROVELAND, CALIFORNIA

AL-9084 (FAA)

APP CRS	Rwy Idg	3625
095°	TDZE	2919
	Apt Elev	2930

RNAV (GPS) RWY 9

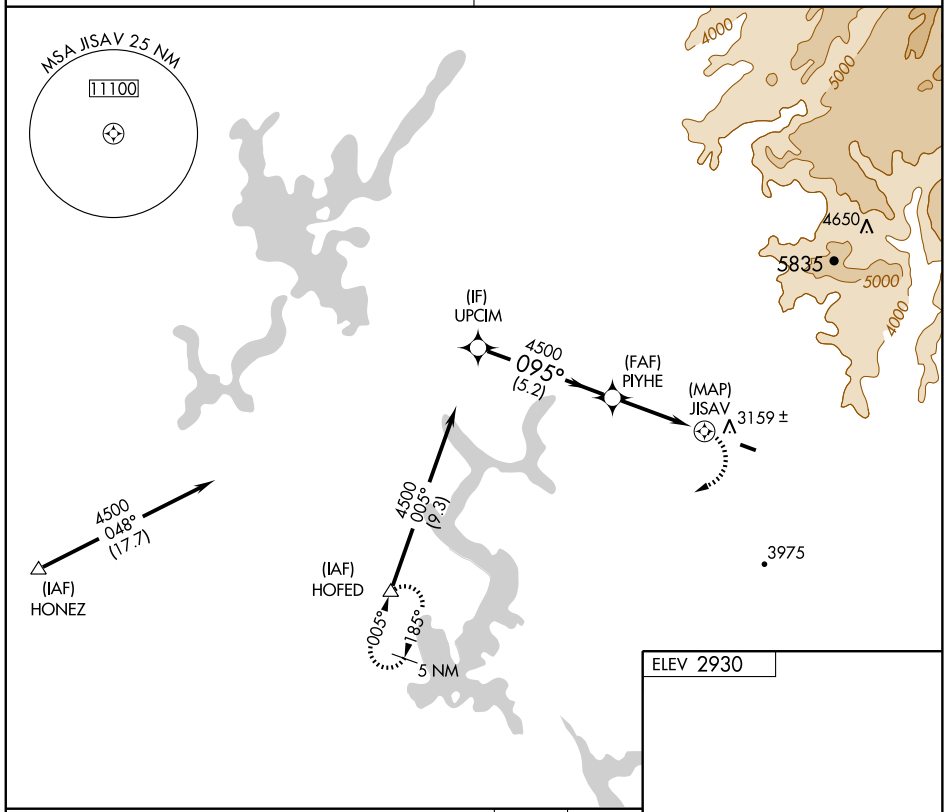
GROVELAND/ PINE MOUNTAIN LAKE (E45)

DME/DME RNP-0.3 NA.
Use Columbia altimeter setting; If not received, use Castle altimeter setting and increase all MDA's 560 feet.

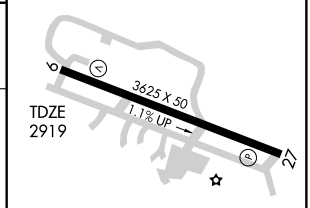
NA

MISSED APPROACH: Climbing right turn to 7000 direct HOFED and hold, continue climb-in-hold to 7000.

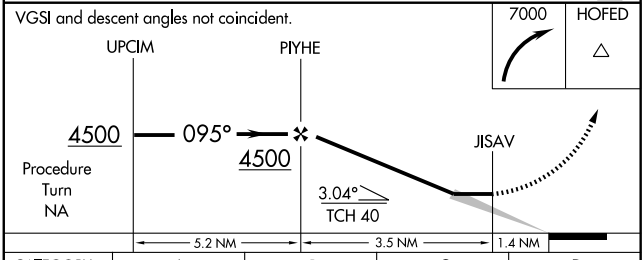
OAKLAND CENTER	CTAF
121.25 327.0	122.9 L



ELEV 2930



VGSI and descent angles not coincident.



7000 HOFED

CATEGORY	A	B	C	D
LNAV MDA	4060-1¾	1141 (1200-1¾)	NA	
CIRCLING	4060-1¾	1130 (1200-1¾)	NA	

MIRL Rwy 9-27 L

SW-2, 14 JAN 2010 to 11 FEB 2010

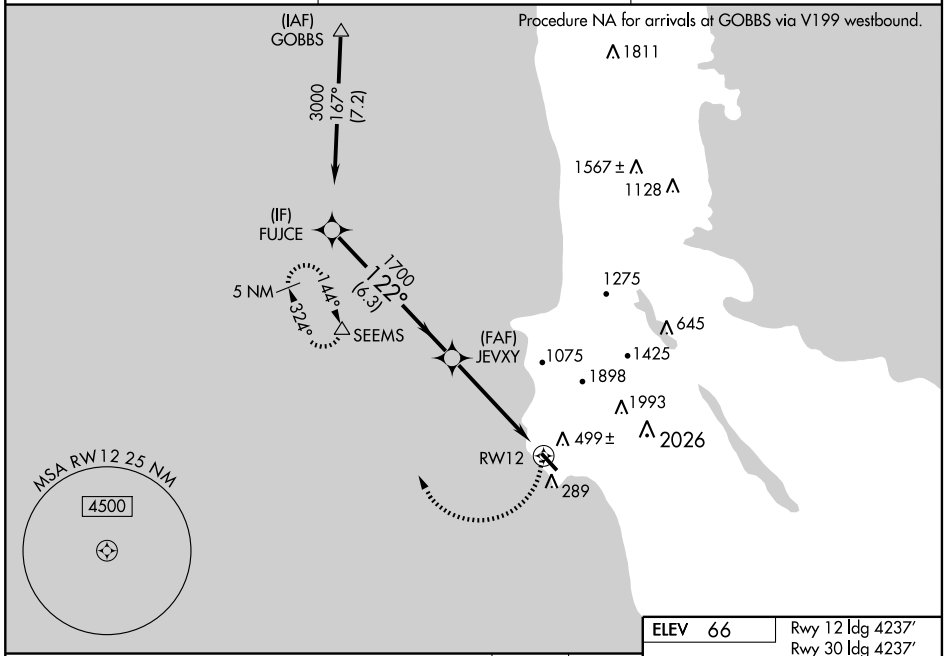
APP CRS		
122°	Rwy Idg	4237
	TDZE	59
	Apt Elev	66

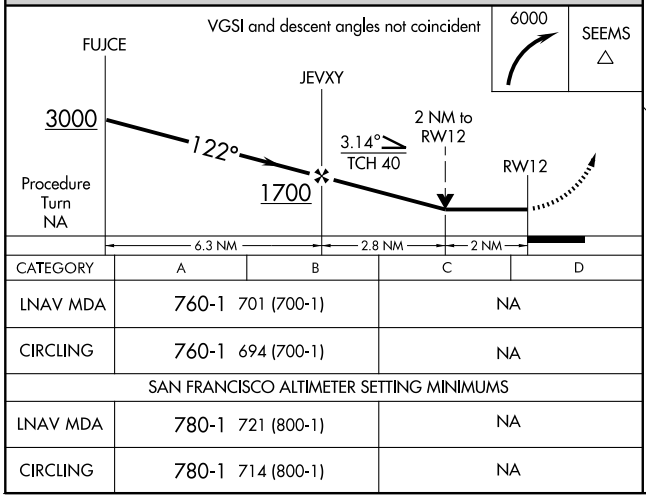
RNAV (GPS) Y RWY 12
HALF MOON BAY (HAF)

Circling NA east of Rwy 12/30. DME/DME RNP -0.3 NA.
Visibility reduction by helicopters NA.
VDP NA when using San Francisco Intl altimeter setting.
Obtain local altimeter setting on CTAF; when not received, use San Francisco Intl altimeter setting.

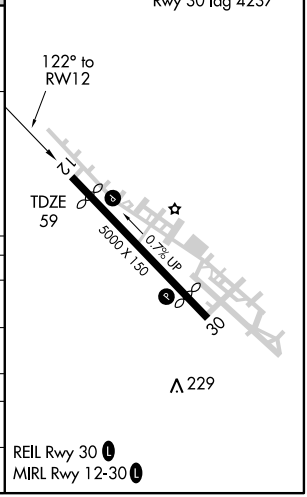
MISSED APPROACH: Climbing right turn to 6000 direct SEEMS and hold, continue climb-in-hold to 6000.

AWOS	NORCAL APP CON	UNICOM
127.275	135.1 307.2	122.8 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	760-1 701 (700-1)		NA	
CIRCLING	760-1 694 (700-1)		NA	
SAN FRANCISCO ALTIMETER SETTING MINIMUMS				
LNAV MDA	780-1 721 (800-1)		NA	
CIRCLING	780-1 714 (800-1)		NA	



SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS		
317°	Rwy Idg	4237
	TDZE	54
	Apt Elev	66

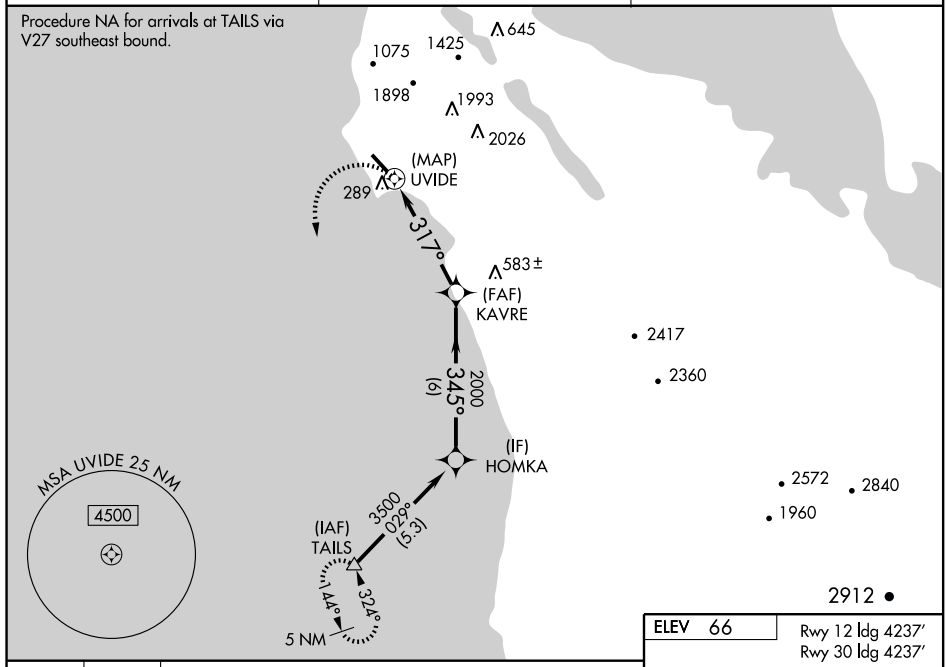
RNAV (GPS) Y RWY 30
HALF MOON BAY (HAF)

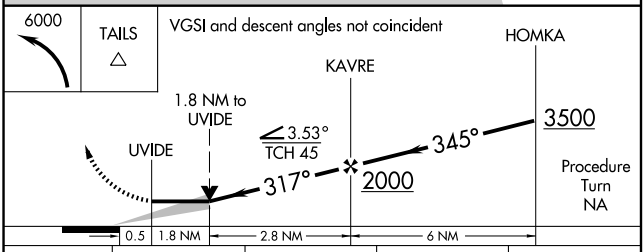
Circling NA east of Rwy 12/30.
DME/DME RNP- 0.3 NA.
Obtain local altimeter setting on CTAF; when not received, use San Francisco Intl altimeter setting.
VDP NA when using San Franciso Intl altimeter setting.

MISSED APPROACH: Climbing left turn to 6000 direct TAILS and hold, continue climb-in-hold to 6000.

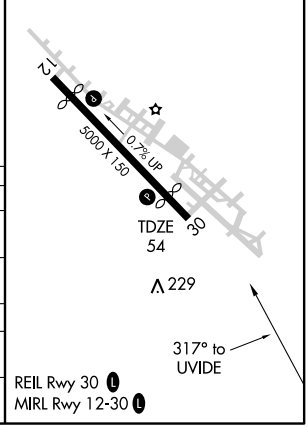
AWOS	NORCAL APP CON	UNICOM
127.275	135.1 307.2	122.8 (CTAF) L

Procedure NA for arrivals at TAILS via V27 southeast bound.





CATEGORY	A	B	C	D
LNAV MDA	800-1 746 (800-1)	800-1¼ 746 (800-1¼)	NA	
CIRCLING	800-1 734 (800-1)	800-1¼ 734 (800-1¼)	NA	
SAN FRANCISCO ALTIMETER SETTING MINIMUMS				
LNAV MDA	840-1 786 (800-1)	840-1¼ 786 (800-1¼)	NA	
CIRCLING	840-1 774 (800-1)	840-1¼ 774 (800-1¼)	NA	



SW-2, 14 JAN 2010 to 11 FEB 2010

HALF MOON BAY, CALIFORNIA

AL-6675 (FAA)

WAAS	APP CRS	Rwy Idg	4237
CH 93802	122°	TDZE	59
W12A		Apt Elev	66

RNAV (GPS) Z RWY 12

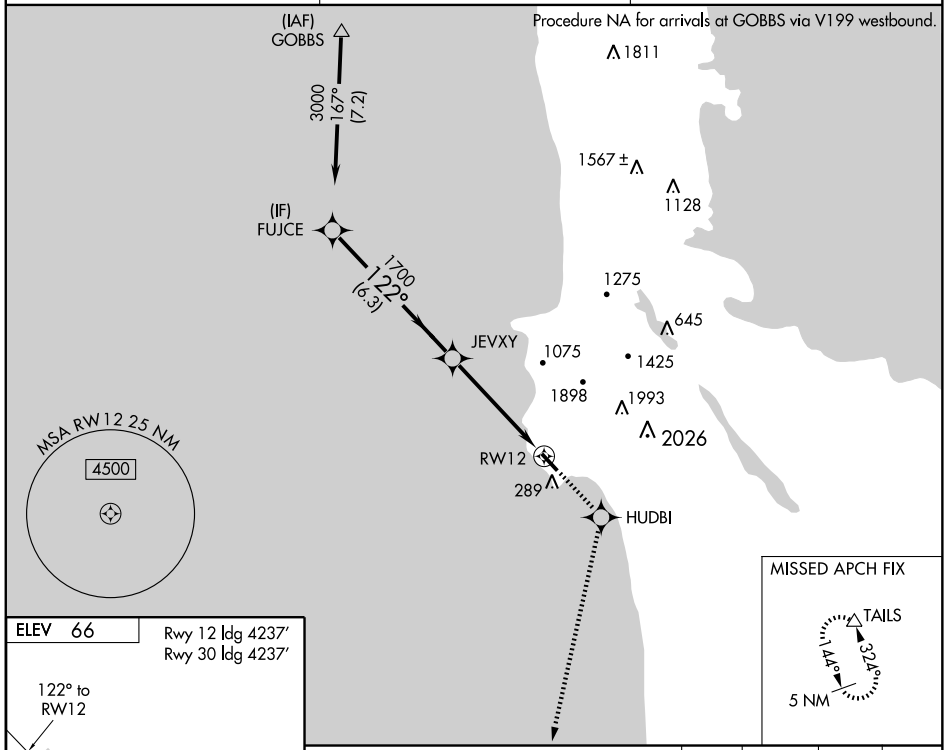
HALF MOON BAY (HAF)

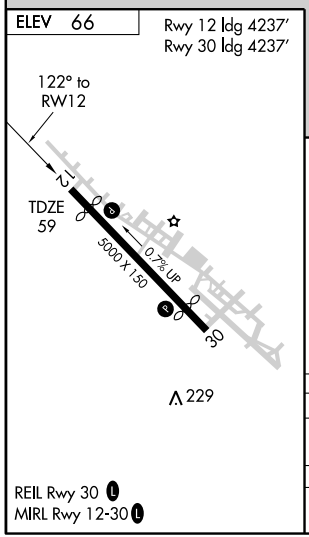
T
NA
W

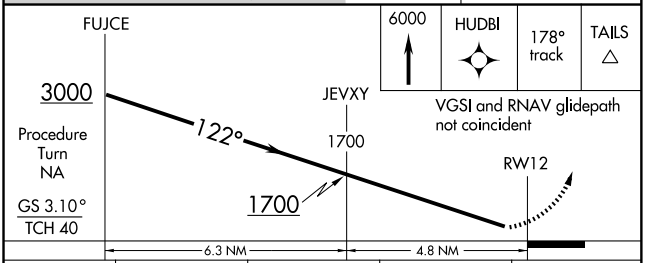
DME/DME RNP- 0.3 NA.
Obtain local altimeter setting on CTAF; when not received, use San Francisco Intl altimeter setting.
Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 6000 direct HUDBI and via 178° track to TAILS and hold, continue climb-in-hold to 6000.

AWOS	NORCAL APP CON	UNICOM
127.275	135.1 307.2	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	395-1¼ 336 (400-1¼)		NA	
SAN FRANCISCO ALTIMETER SETTING MINIMUMS				
LPV DA	423-1¼ 364 (400-1¼)		NA	

SW-2, 14 JAN 2010 to 11 FEB 2010

HALF MOON BAY, CALIFORNIA

AL-6675 (FAA)

WAAS	APP CRS	Rwy Idg	4237
CH 50302	302°	TDZE	54
W30A		Apt Elev	66

RNAV (GPS) Z RWY 30

HALF MOON BAY (HAF)

T
A NA
W

DME/DME RNP- 0.3 NA.
Obtain local altimeter setting on CTAF; when not received, use San Francisco Intl altimeter setting.

MISSED APPROACH: Climb to 6000 direct LAYKI and via 267° track to SEEMS and hold, continue climb-in-hold to 6000.

AWOS	NORCAL APP CON	UNICOM
127.275	135.1 307.2	122.8 (CTAF) L

Procedure NA for arrivals at SAPID via V25-V87 southeast bound.

5 NM
144°
324°
SEEMS
LAYKI
1275
645
1075
1425
1898
1993
2026
RW30
289
302°
2204±
2417
WOHLI
2360
3300
302°
(6.1)
(IF)
JUMDA
2572
2840
1960
MSA RW30 25 NM
4500
4200
313°
(9.9)
2912
3231
2359
(IAF)
SAPID

ELEV 66
Rwy 12 ldg 4237′
Rwy 30 ldg 4237′

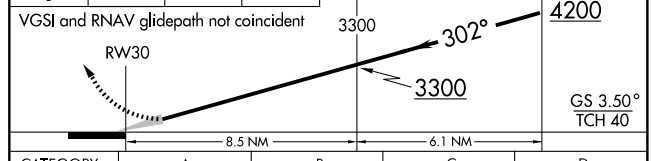
5000 X 150
0.7% UP
TDZE
54
229
302° to
RW30

REIL Rwy 30 L
MIRL Rwy 12-30 L

6000	LAYKI	267° track	SEEMS

Procedure Turn NA

VGSI and RNAV glidepath not coincident



CATEGORY	A	B	C	D
LPV DA	363-1 309 (300-1)		NA	
SAN FRANCISCO ALTIMETER SETTING MINIMUMS				
LPV DA	391-1 337 (400-1)		NA	

SW-2, 14 JAN 2010 to 11 FEB 2010

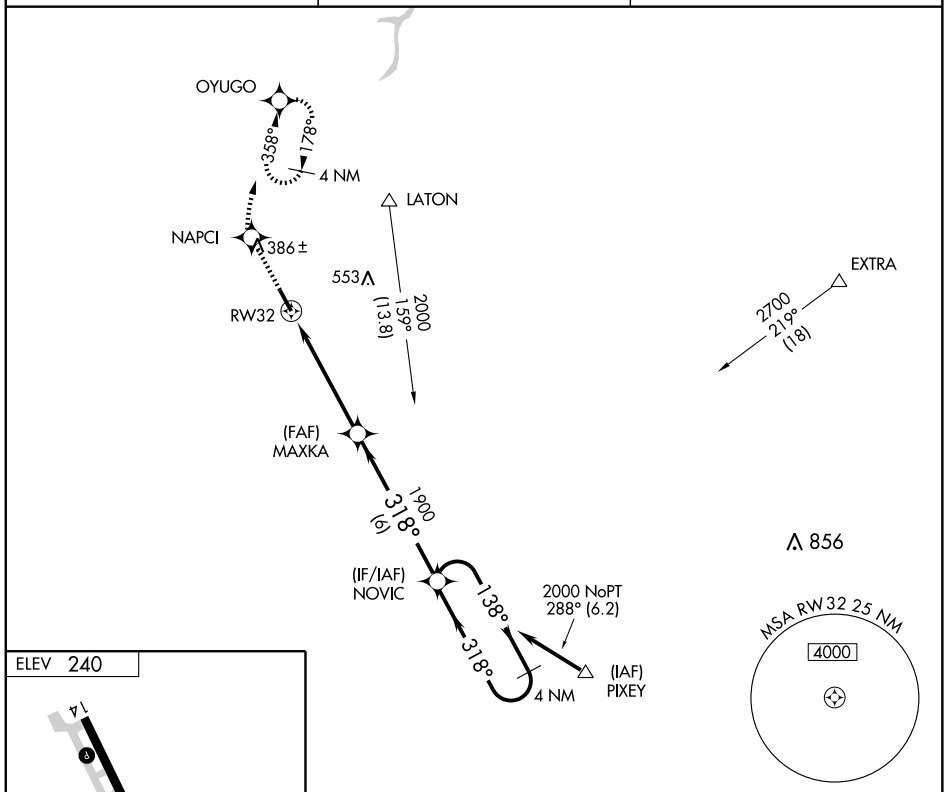
APP CRS	Rwy Idg	5175
318°	TDZE	238
	Apt Elev	240

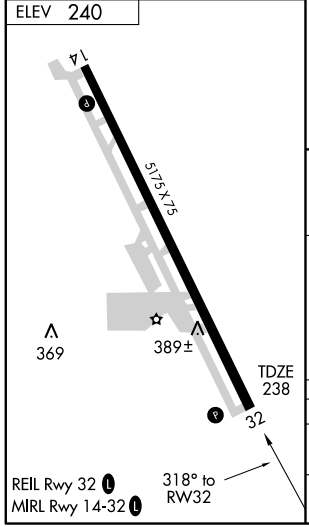
RNAV (GPS) RWY 32
HANFORD MUNI (HJO)

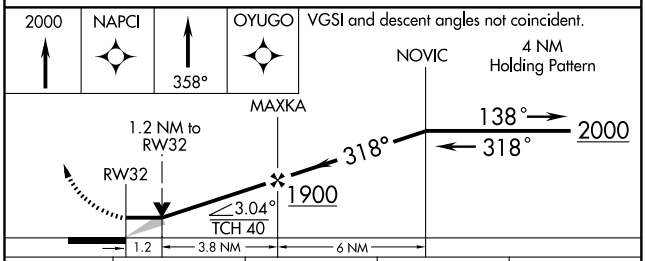
DME/DME RNP -0.3 NA. When local altimeter setting not received, use Fresno Yosemite Intl altimeter setting and increase all MDAs 80 feet.

MISSED APPROACH: Climb to 2000 direct NAPCI and via 358° track to OYUGO and hold.

ASOS	FRESNO APP CON	UNICOM
134.75	123.9	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	640-1 402 (400-1)		NA	
CIRCLING	720-1 480 (500-1)		NA	

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME VIS	APP CRS	Rwy Idg	N/A
109.4	230°	TDZE	N/A
Chan 31		Apt Elev	240

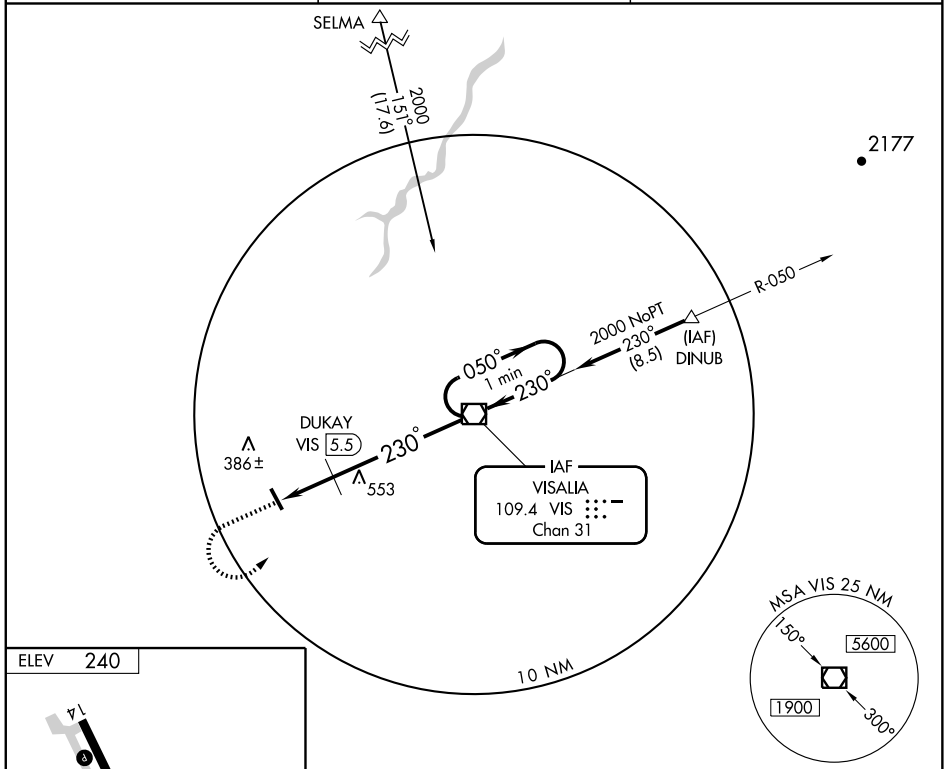
VOR-A

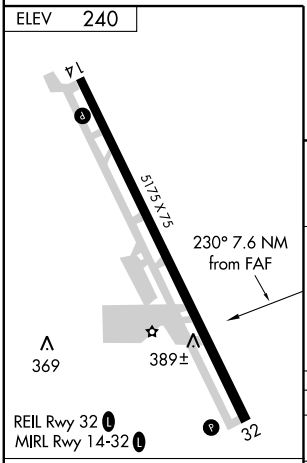
HANFORD MUNI (HJO)

When local altimeter setting not received, use Fresno Yosemite Intl altimeter setting and increase all MDAs 80 feet.

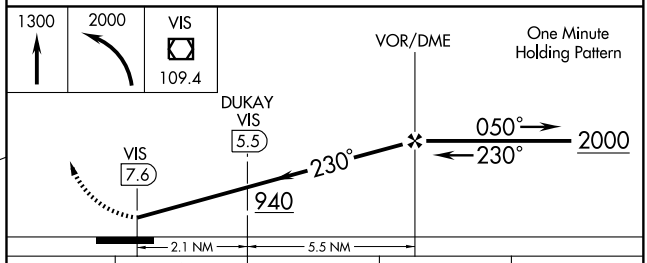
MISSED APPROACH: Climb to 1300 then climbing left turn to 2000 direct VIS VOR/DME and hold.

ASOS	FRESNO APP CON	UNICOM
134.75	123.9	122.8 (CTAF) L





FAF to MAP 7.6 NM					
Knots	60	90	120	150	180
Min:Sec	7:36	5:04	3:48	3:02	2:32



CATEGORY	A	B	C	D
CIRCLING	940-1 700 (700-1)		NA	

DUKAY FIX MINIMUMS

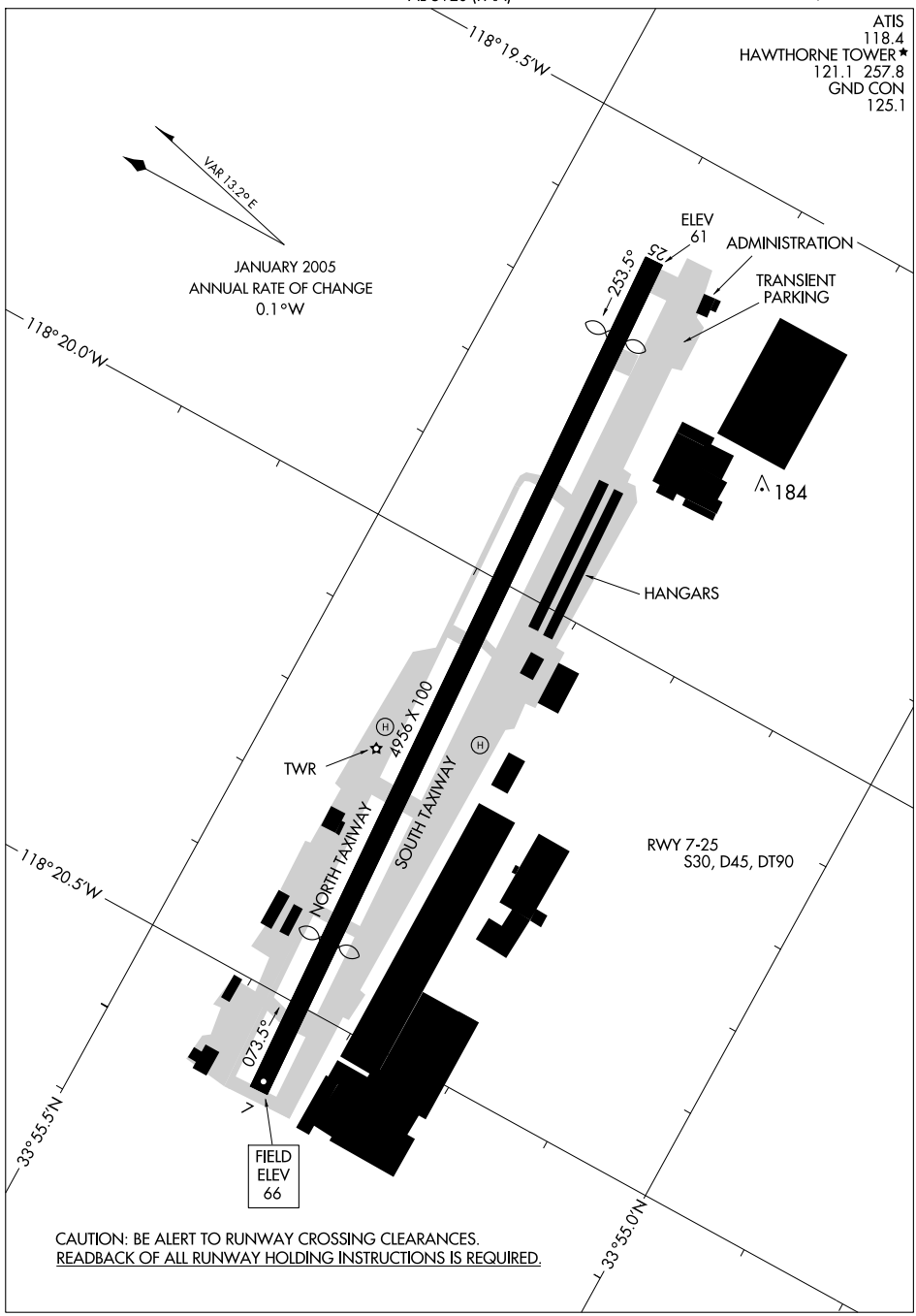
CIRCLING	720-1 480 (500-1)		NA	

SW-2, 14 JAN 2010 to 11 FEB 2010

09295

AIRPORT DIAGRAM

HAWTHORNE/JACK NORTHROP FIELD/HAWTHORNE MUNI (HHR)
AL-5120 (FAA)
HAWTHORNE, CALIFORNIA



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC I-HHR	APP CRS	Rwy Idg	4493
109.1	253°	TDZE	63
		Apt Elev	66

LOC RWY 25

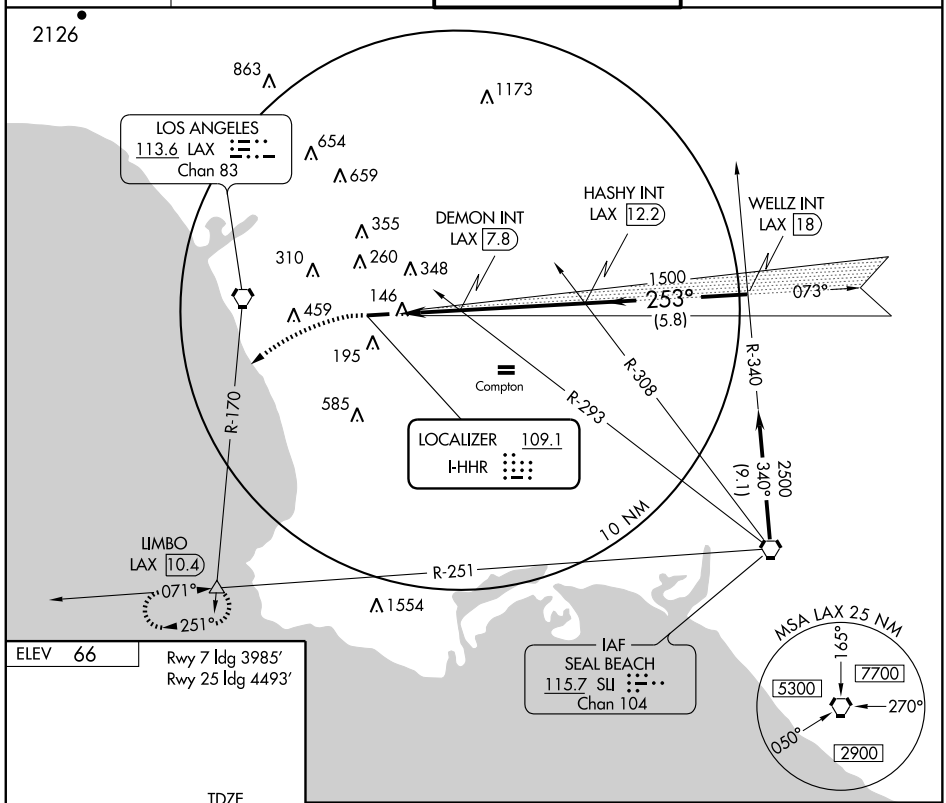
HAWTHORNE/JACK NORTHROP FIELD/HAWTHORNE MUNI (HHR)

DME from LAX VORTAC. Inoperative table does not apply.
Visibility reduction by helicopters NA.
Circling not authorized north of Rwy 7-25.
Circling not authorized when control tower closed.

ODALS

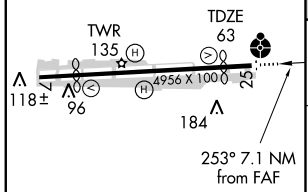
MISSED APPROACH: Climb to 700 then climbing left turn to 3000 via heading 210° and LAX R-170 to LIMBO Int and hold.

ATIS	SOCAL APP CON	HAWTHORNE TOWER ★	GND CON
118.4	124.9 269.0	121.1 (CTAF) C 257.8	125.1



ELEV 66

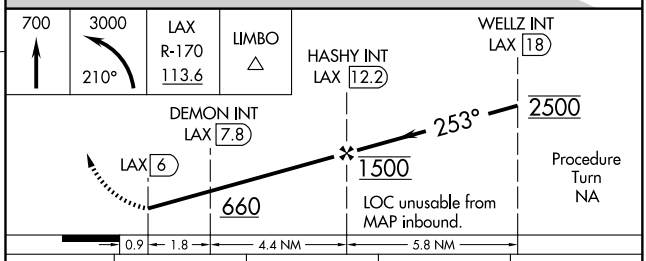
Rwy 7 Idg 3985′
Rwy 25 Idg 4493′



REIL Rwy 25
MIRL Rwy 7-25 C

FAF to MAP 6.2 NM

Knots	60	90	120	150	180
Min:Sec	6:12	4:08	3:06	2:29	2:04



CATEGORY	A	B	C	D
S-LOC 25	600-1¼ 537 (600-1¼)		600-1½ 537 (600-1½)	600-1¾ 537 (600-1¾)
CIRCLING	600-1¼ 534 (600-1¼)		600-1½ 534 (600-1½)	620-2 554 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC LAX	APP CRS	Rwy Idg	4493
113.6	261°	TDZE	63
Chan 83		Apt Elev	66

VOR or GPS RWY 25

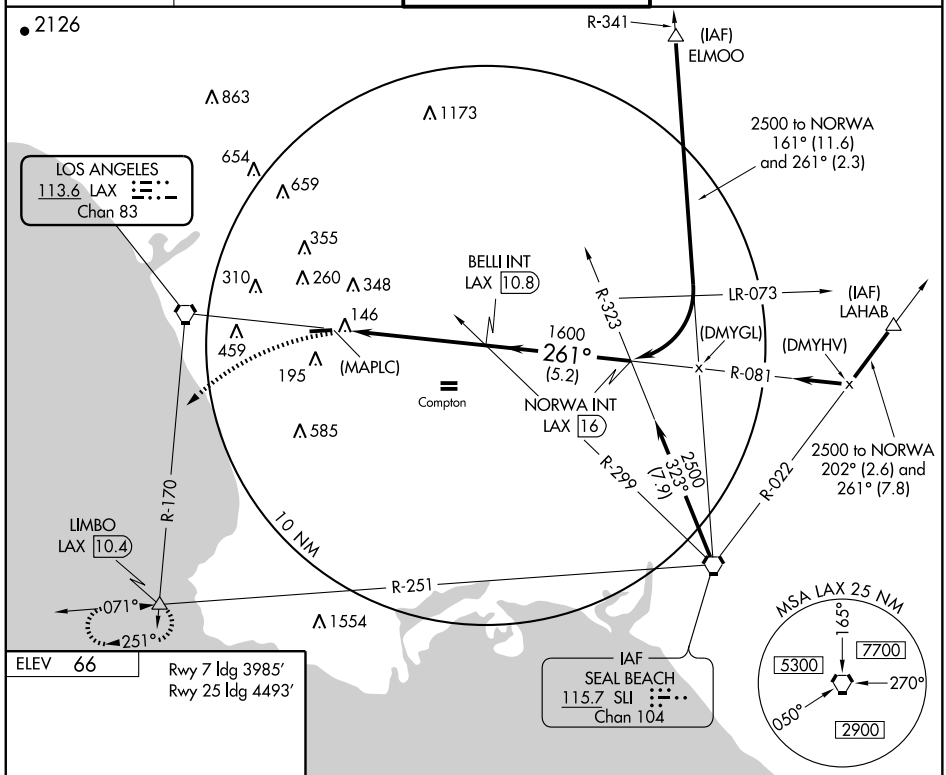
HAWTHORNE/JACK NORTHROP FIELD/HAWTHORNE MUNI (HHR)

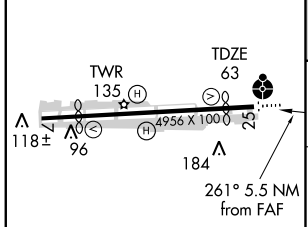
Visibility reduction by helicopters NA. Inoperative table does not apply. Circling not authorized north of Rwy 7-25. Circling not authorized when control tower closed.

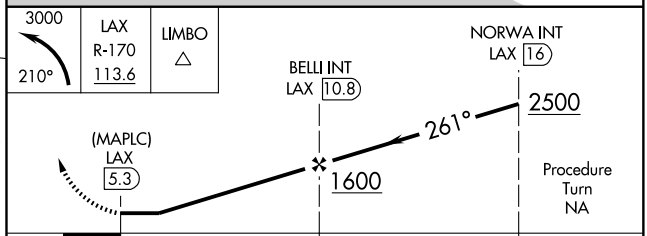
ODALS

MISSED APPROACH: Climbing left turn to 3000 via heading 210° and LAX R-170 to LIMBO Int and hold.

ATIS	SOCAL APP CON	HAWTHORNE TOWER ★	GND CON
118.4	124.9 269.0	121.1 (CTAF) L 257.8	125.1







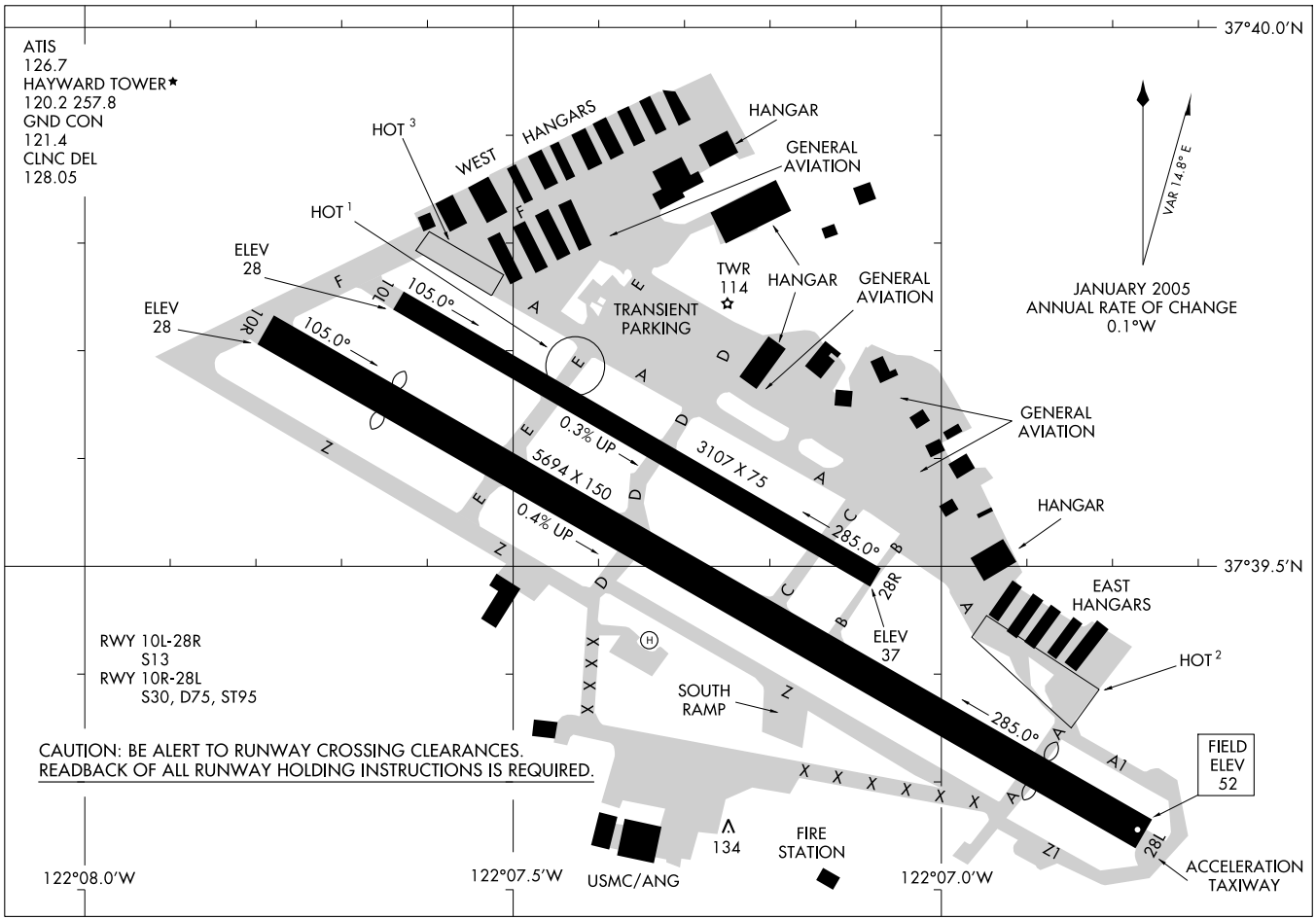
REIL Rwy 25
MIRL Rwy 7-25 L

FAF to MAP 5.5 NM

Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50

CATEGORY	A	B	C	D
S-25	680-1 617 (700-1)		680-1¾ 617 (700-1¾)	680-2 617 (700-2)
CIRCLING	680-1 614 (700-1)		680-1¾ 614 (700-1¾)	680-2 614 (700-2)

SW-3, 14 JAN 2010 to 11 FEB 2010


AIRPORT DIAGRAM
AL-5015 (FAA)
HAYWARD EXECUTIVE (HWD)
HAYWARD, CALIFORNIA
37°40.0'N
37°39.5'N
122°08.0'W
122°07.5'W
122°07.0'W
ATIS
126.7
HAYWARD TOWER★
120.2 257.8
GND CON
121.4
CLNC DEL
128.05
HOT 3
HOT 1
HOT 2
WEST HANGARS
HANGAR
GENERAL AVIATION
TWR
114
TRANSIENT PARKING
ELEV 28
ELEV 28
10L
10R
105.0°
105.0°
0.3% UP
3107 X 75
5694 X 150
0.4% UP
285.0°
285.0°
28R
28L
ELEV 37
VAR 14.8° E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°W
EAST HANGARS
SOUTH RAMP
FIELD ELEV 52
134
FIRE STATION
USMC/ANG
ACCELERATION TAXIWAY
RWY 10L-28R
S13
RWY 10R-28L
S30, D75, ST95
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

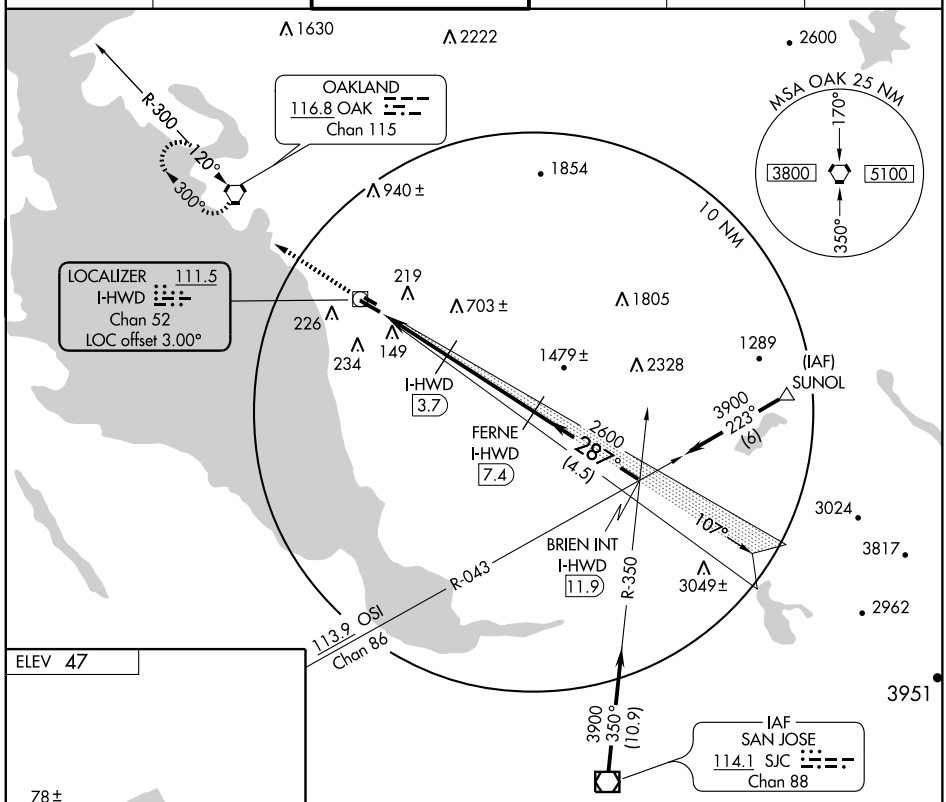
LOC/DME I-HWD	APP CRS	Rwy Idg	5018
111.5	287°	TDZE	47
Chan 52		Apt Elev	47

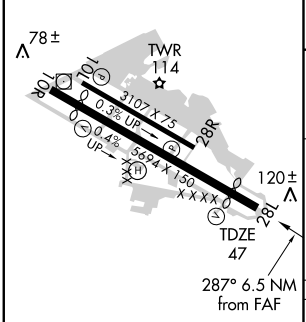
LOC/DME RWY 28L
HAYWARD EXECUTIVE (HWD)

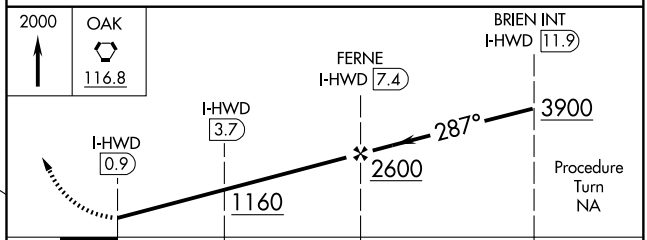
Circling not authorized north of Rwy 10L-28R.

MISSED APPROACH: Climb to 2000 direct OAK VORTAC and hold.

ATIS	NORCAL APP CON	HAYWARD TOWER ★	GND CON	CLNC DEL	UNICOM
126.7	124.4 351.8	120.2 (CTAF) L 257.8	121.4	128.05	122.95







CATEGORY	A	B	C	D
S-28L	400-1 353 (400-1)			400-1¼ 353 (400-1¼)
CIRCLING	540-1 493 (500-1)		540-1½ 493 (500-1½)	600-2 553 (600-2)

MIRL Rwy 10R-28L L
MIRL Rwy 10L-28R
REIL Rwys 10R and 28L

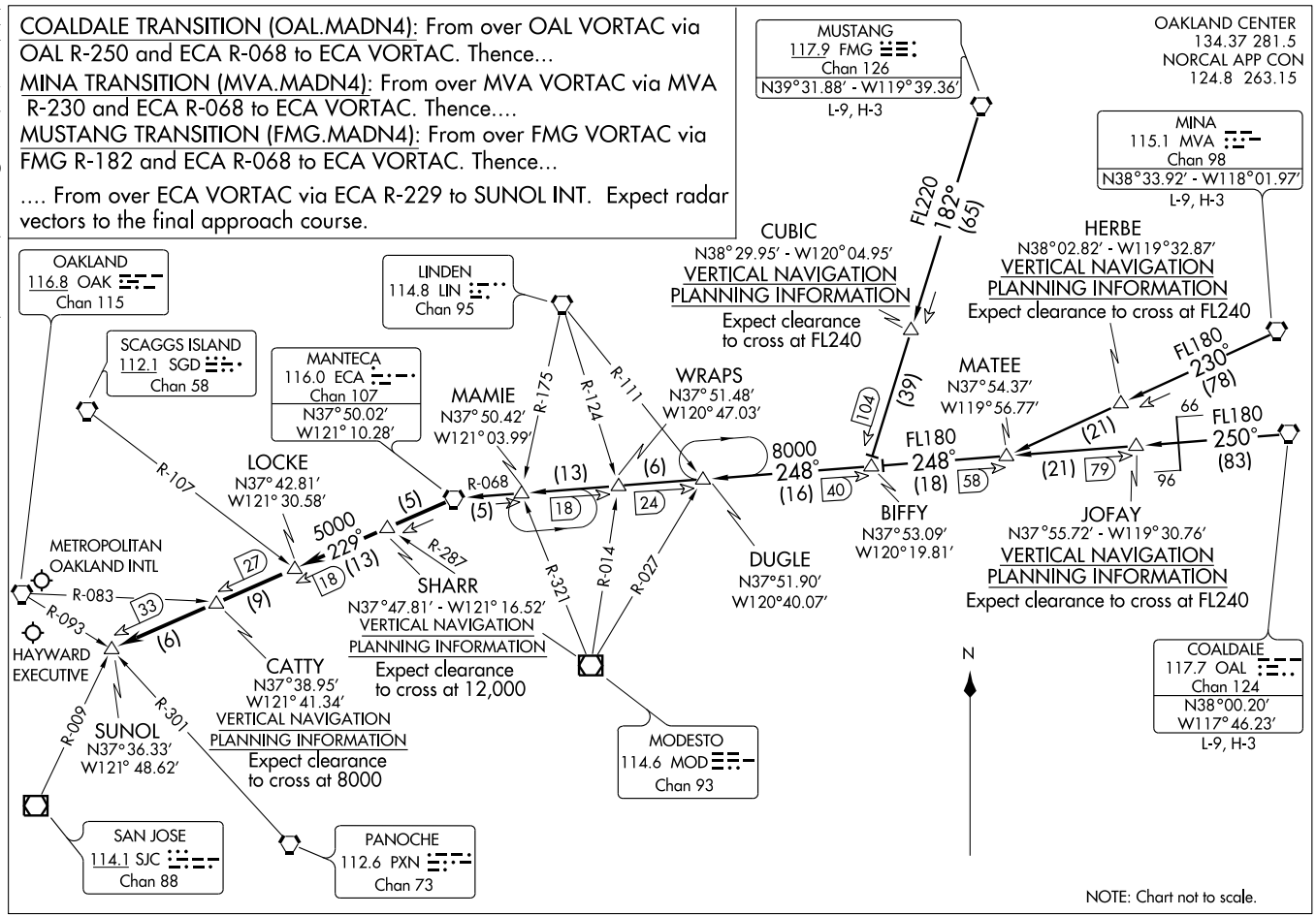
SW-2, 14 JAN 2010 to 11 FEB 2010

COALDALE TRANSITION (OAL.MADN4): From over OAL VORTAC via OAL R-250 and ECA R-068 to ECA VORTAC. Thence...

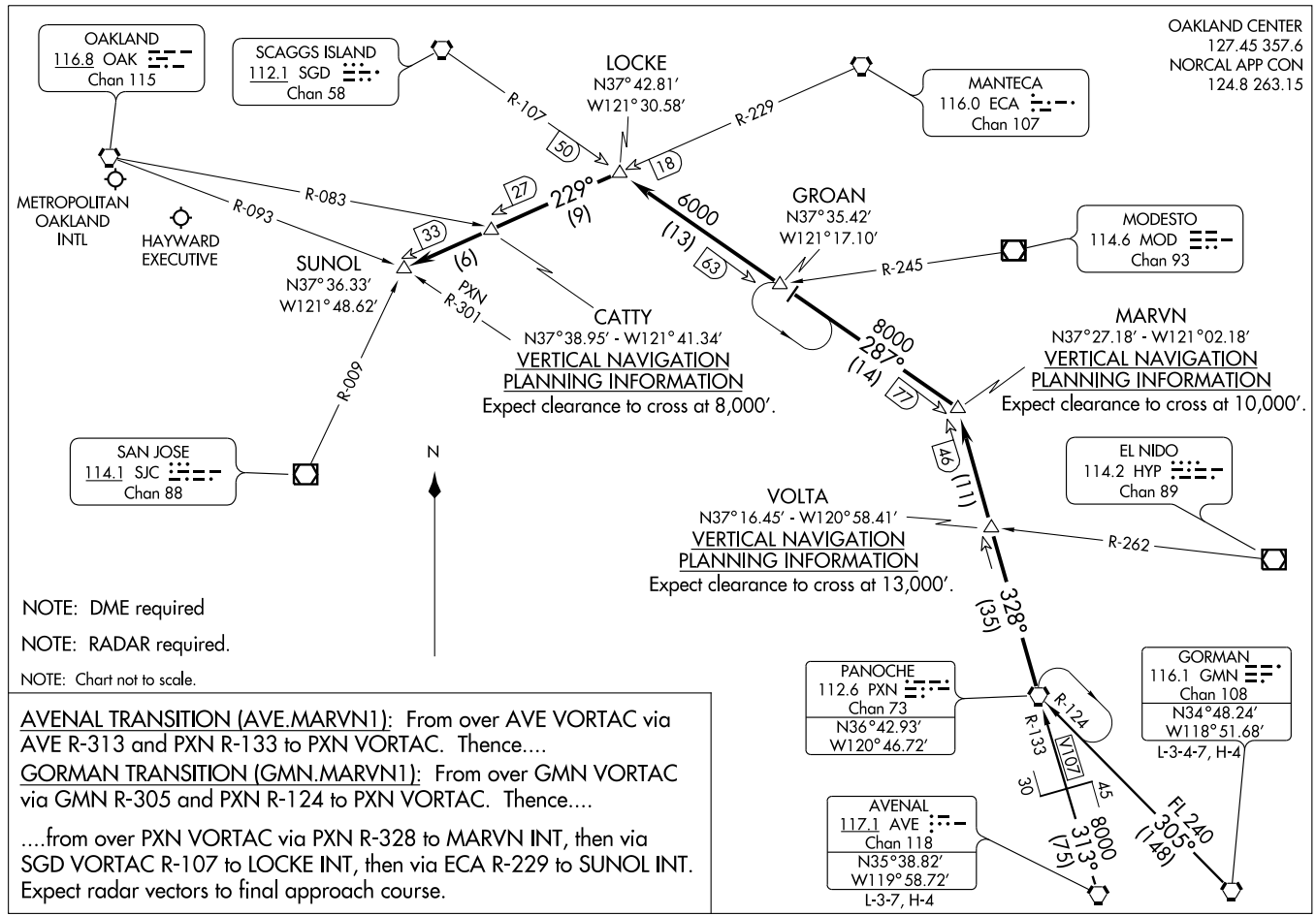
MINA TRANSITION (MVA.MADN4): From over MVA VORTAC via MVA R-230 and ECA R-068 to ECA VORTAC. Thence....

MUSTANG TRANSITION (FMG.MADN4): From over FMG VORTAC via FMG R-182 and ECA R-068 to ECA VORTAC. Thence...

.... From over ECA VORTAC via ECA R-229 to SUNOL INT. Expect radar vectors to the final approach course.



NOTE: Chart not to scale.

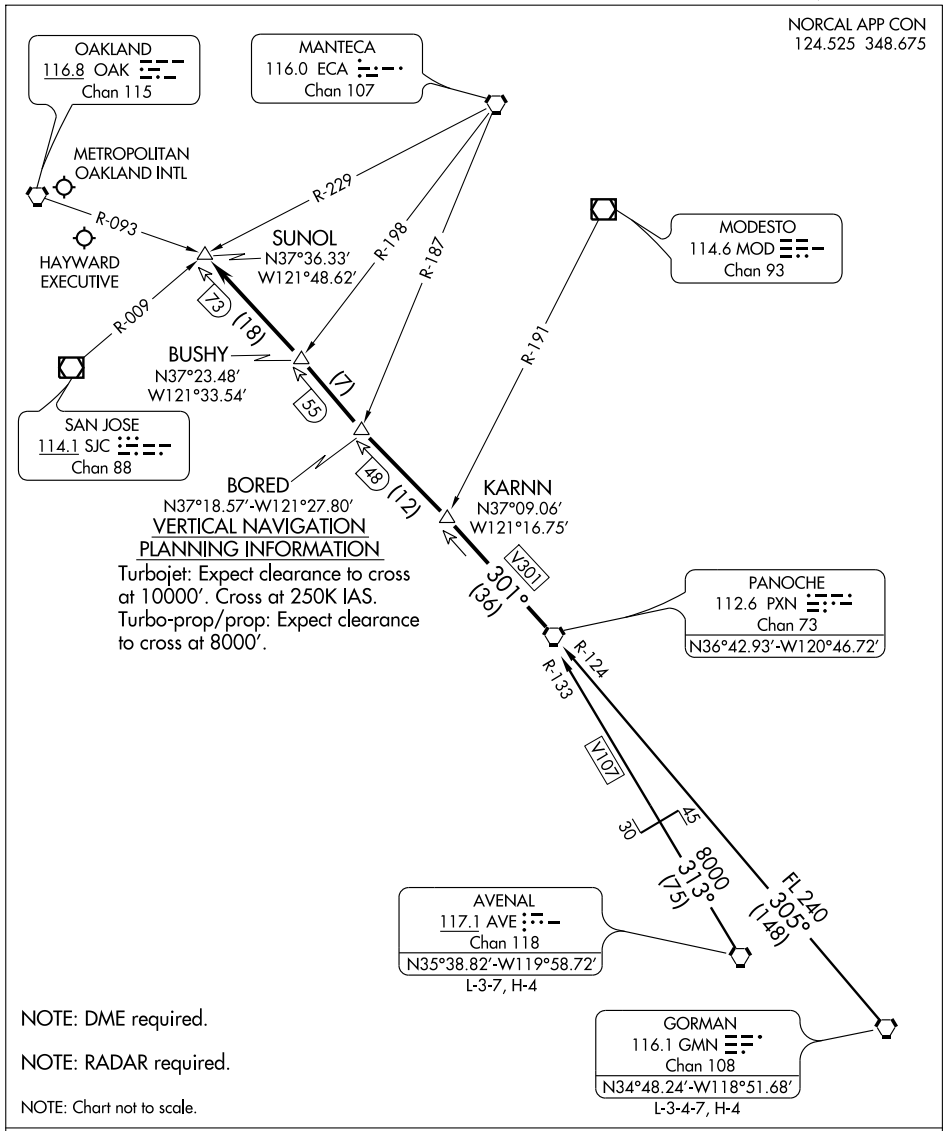


AVENAL TRANSITION (AVE.MARVN1): From over AVE VORTAC via AVE R-313 and PXN R-133 to PXN VORTAC. Thence....

GORMAN TRANSITION (GMN.MARVN1): From over GMN VORTAC via GMN R-305 and PXN R-124 to PXN VORTAC. Thence....

....from over PXN VORTAC via PXN R-328 to MARVN INT, then via SGD VORTAC R-107 to LOCKE INT, then via ECA R-229 to SUNOL INT. Expect radar vectors to final approach course.

PANOCHE TWO ARRIVAL



AVENAL TRANSITION (AVE.PXN2): From over AVE VORTAC via AVE R-313 and PXN R-133 to PXN VORTAC. Thence....

GORMAN TRANSITION (GMN. PXN2): From over GMN VORTAC via GMN R-305 and PXN R-124 to PXN VORTAC. Thence....

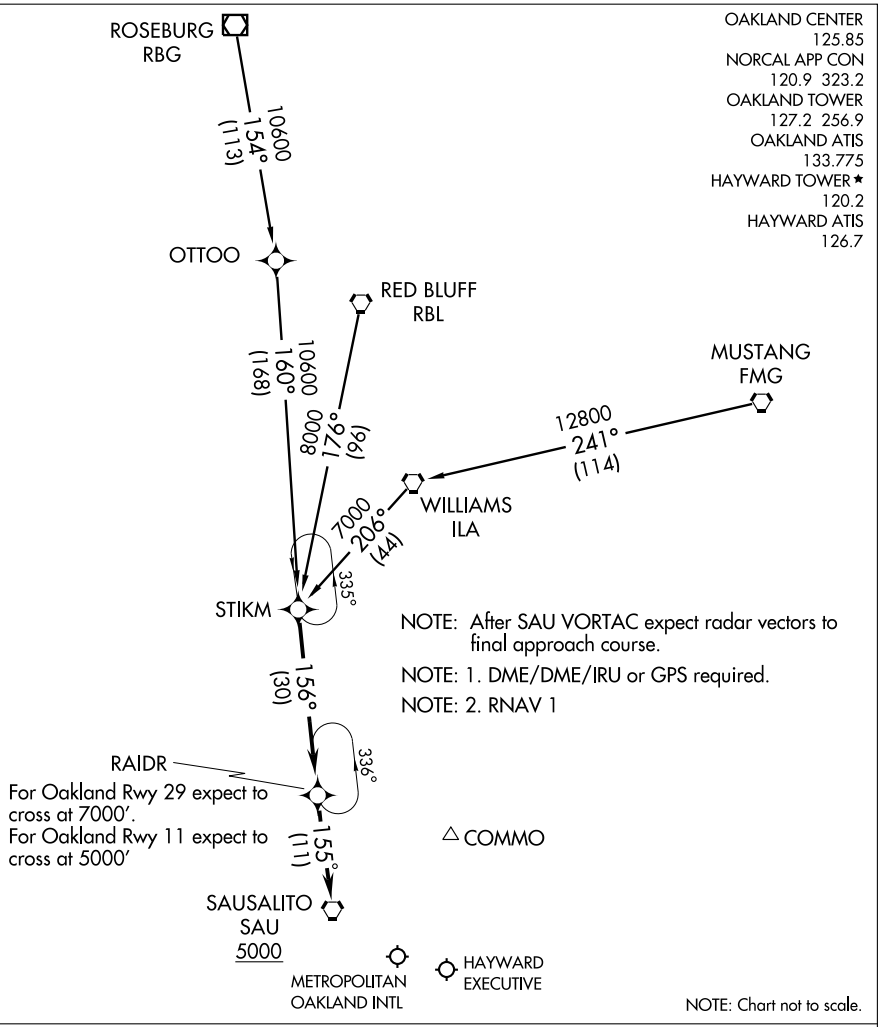
....From over PXN VORTAC via PXN R-301 to SUNOL INT. Expect radar vectors to the final approach course.

SW-2, 14 JAN 2010 to 11 FEB 2010

RAIDR TWO ARRIVAL (RNAV)

ST-294 (FAA)

OAKLAND, CALIFORNIA



MUSTANG TRANSITION (FMG.RAIDR2)

RED BLUFF TRANSITION (RBL.RAIDR2)

ROSEBURG TRANSITION (RBG.RAIDR2)

From over STIKM WP via 156° track to RAIDR WP, thence as depicted to cross SAU VORTAC at or above 5000. Expect radar vectors to final approach course.

LOST COMMUNICATIONS:

Depart SAU VORTAC and proceed direct to COMMO INT.

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	5018
299°	TDZE	50
	Apt Elev	52

RNAV (GPS) Y RWY 28L

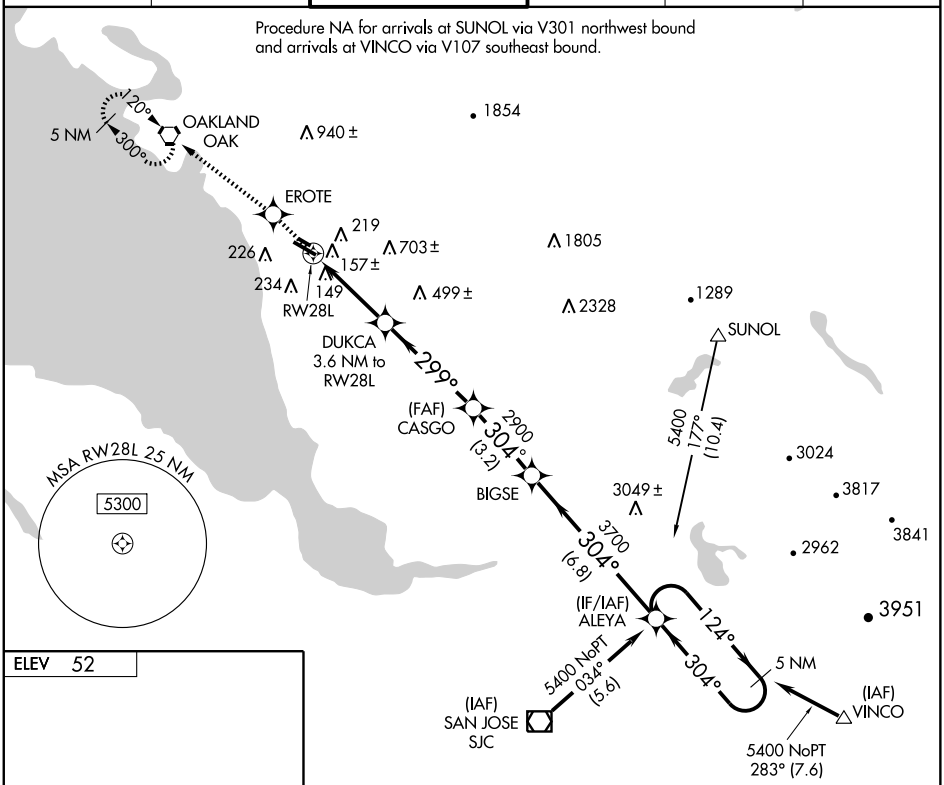
HAYWARD EXECUTIVE (HWD)

Circling NA north of Rwy 10L-28R. DME/DME RNP-0.3 NA.
If local altimeter setting not received, use Oakland altimeter setting and increase all MDAs 20 feet. Visibility reduction by helicopters NA.

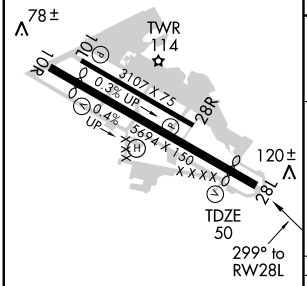
MISSED APPROACH: Climb to 2000 direct EROTE and via 292° track to OAK VORTAC and hold.

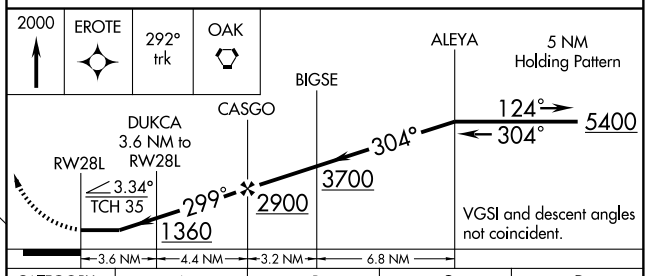
ATIS	NORCAL APP CON	HAYWARD TOWER ★	GND CON	CLNC DEL	UNICOM
126.7	124.4 351.8	120.2 (CTAF) L 257.8	121.4	128.05	122.95

Procedure NA for arrivals at SUNOL via V301 northwest bound and arrivals at VINCO via V107 southeast bound.



ELEV 52





CATEGORY	A	B	C	D
LNAV MDA	460-1 410 (500-1)		460-1¼ 410 (500-1¼)	
CIRCLING	540-1 488 (500-1)		540-1½ 488 (500-1½)	620-2 568 (600-2)

MIRL Rwy 10L-28R
REIL Rwys 10R and 28L

MIRL Rwy 10R-28L L

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 77604 W28A	APP CRS 285°	Rwy Idg 5018	TDZE 50	Apt Elev 52

RNAV (GPS) Z RWY 28L

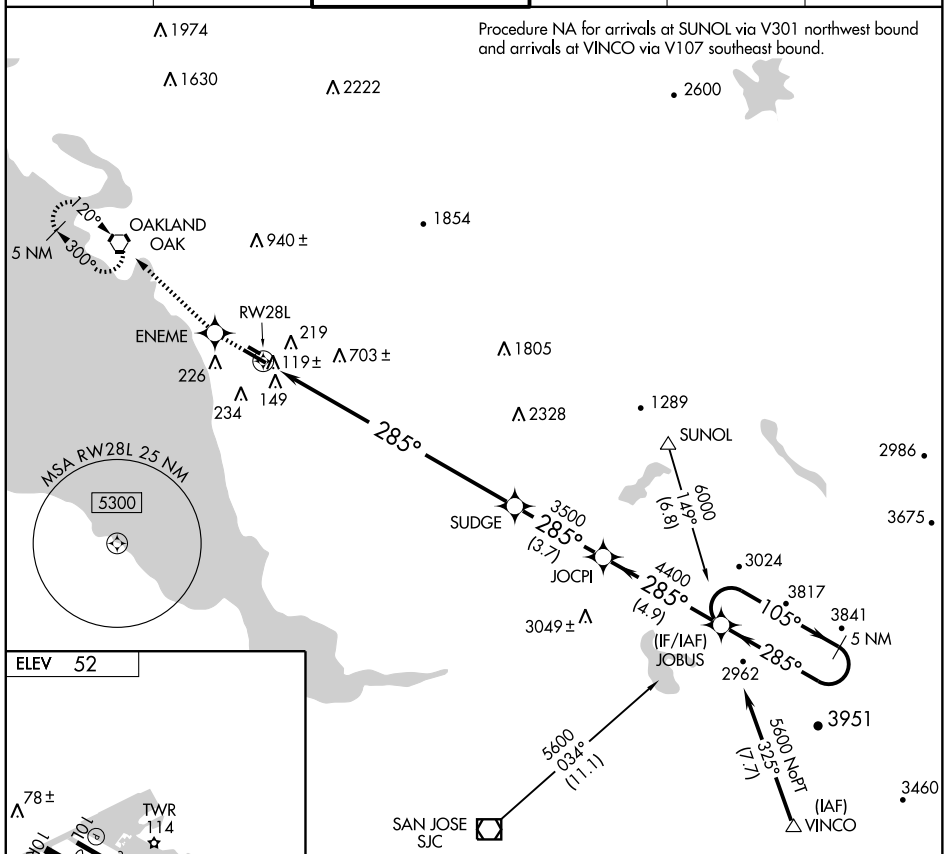
HAYWARD EXECUTIVE (HWD)

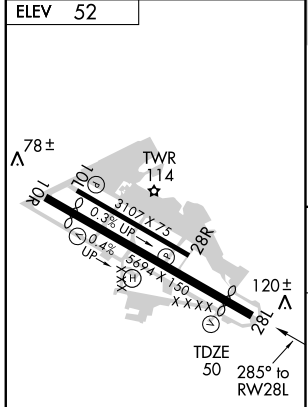
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. If local altimeter setting not received, use Oakland altimeter setting and increase DA 20 feet.

MISSED APPROACH: Climb to 2000 direct ENEME and via 298° track to OAK VORTAC and hold.

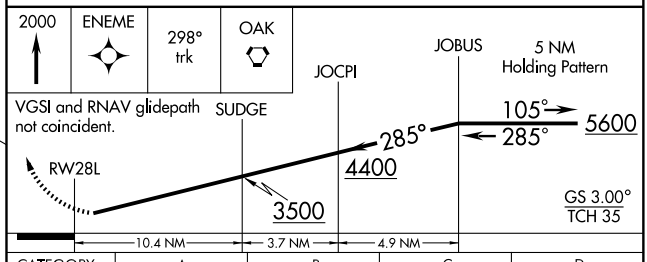
ATIS	NORCAL APP CON	HAYWARD TOWER ★	GND CON	CLNC DEL	UNICOM
126.7	124.4 351.8	120.2 (CTAF) L 257.8	121.4	128.05	122.95

Procedure NA for arrivals at SUNOL via V301 northwest bound and arrivals at VINCO via V107 southeast bound.





MIRL Rwy 10R-28L L
MIRL Rwy 10L-28R
REIL Rwys 10R and 28L



CATEGORY	A	B	C	D
LPV DA	348-1 298 (300-1)			

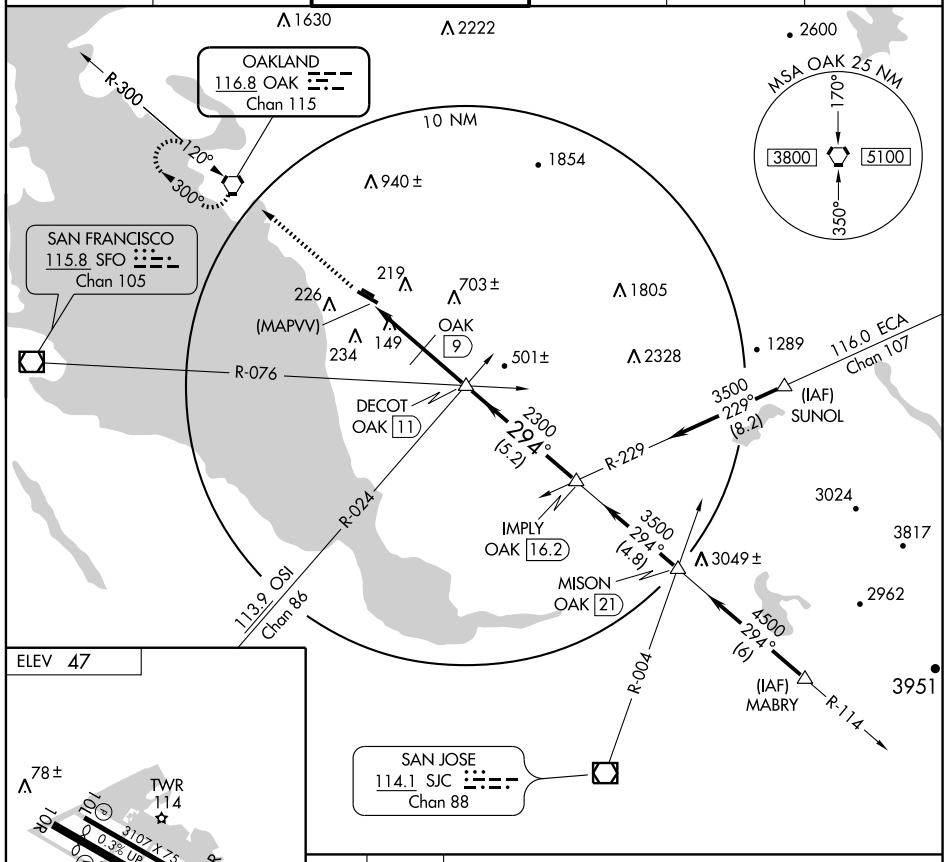
VORTAC OAK	APP CRS	Rwy Idg	N/A
116.8	294°	TDZE	N/A
Chan 115		Apt Elev	47

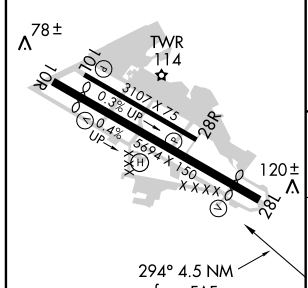
VOR/DME or GPS-B
HAYWARD EXECUTIVE (HWD)

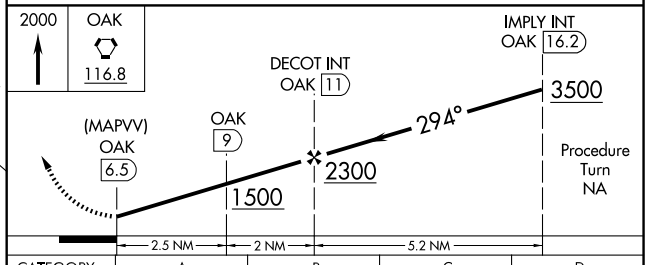
Circling not authorized north of Rwy 10L-28R.

MISSED APPROACH: Climb to 2000 direct to OAK VORTAC and hold.

ATIS	NORCAL APP CON	HAYWARD TOWER ★	GND CON	CLNC DEL	UNICOM
126.7	124.4 351.8	120.2 (CTAF) Ⓛ 257.8	121.4	128.05	122.95







CATEGORY	A	B	C	D
CIRCLING	540-1	493 (500-1)	540-1½ 493 (500-1½)	600-2 553 (600-2)

MIRL Rwy 10R-28L Ⓛ
MIRL Rwy 10L-28R
REIL Rwys 10R and 28L

SW-2, 14 JAN 2010 to 11 FEB 2010

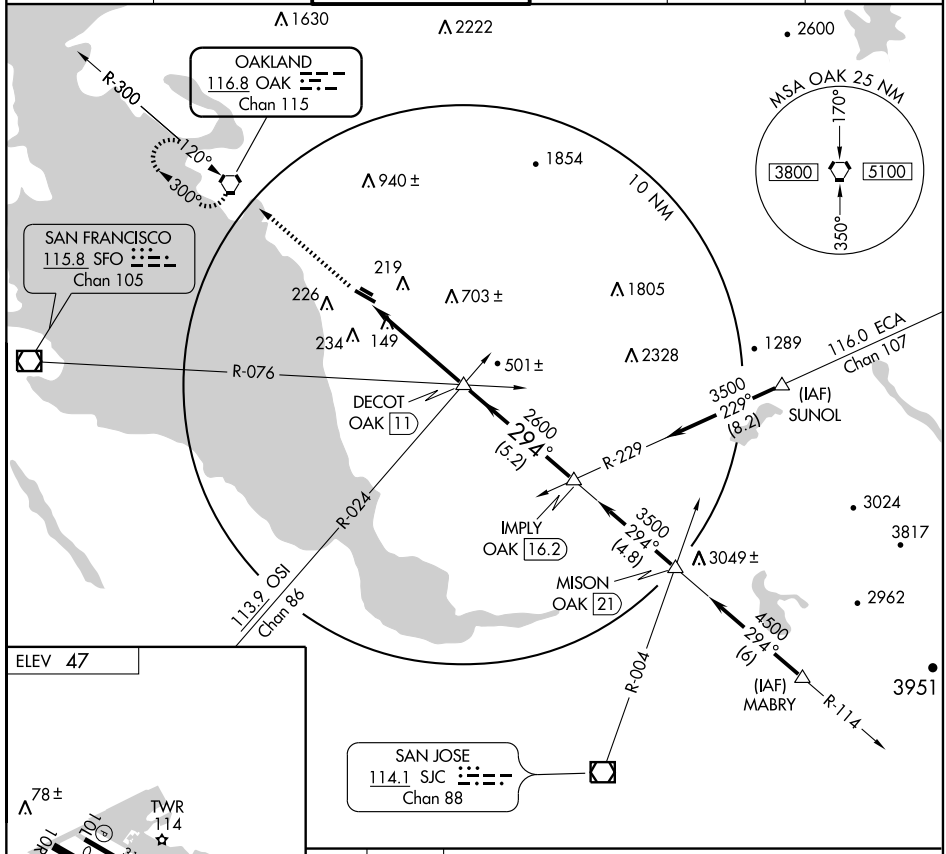
VORTAC OAK	APP CRS	Rwy Idg	N/A
116.8	294°	TDZE	N/A
Chan 115		Apt Elev	47

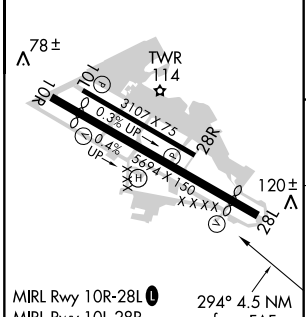
VOR or GPS-A
HAYWARD EXECUTIVE (HWD)

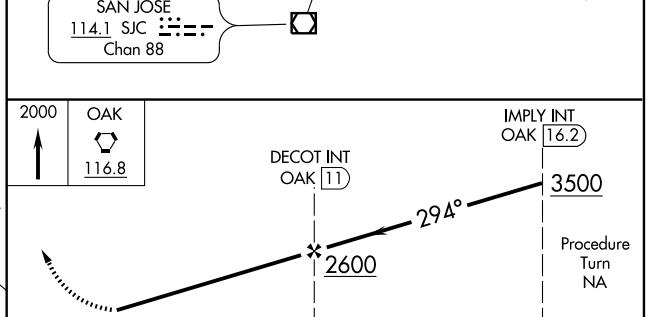
Circling not authorized north of Rwy 10L-28R.

MISSED APPROACH: Climb to 2000 direct to OAK VORTAC and hold.

ATIS	NORCAL APP CON	HAYWARD TOWER ★	GND CON	CLNC DEL	UNICOM
126.7	124.4 351.8	120.2 (CTAF) L 257.8	121.4	128.05	122.95







FAF to MAP 4.5 NM					
Knots	60	90	120	150	180
Min:Sec	4:30	3:00	2:15	1:48	1:30

CATEGORY	A	B	C	D
CIRCLING	800-1 753 (800-1)	800-1¼ 753 (800-1¼)	800-2¼ 753 (800-2¼)	800-2½ 753 (800-2½)

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	4314
035°	TDZE	1505
	Apt Elev	1512

RNAV (GPS) RWY 5

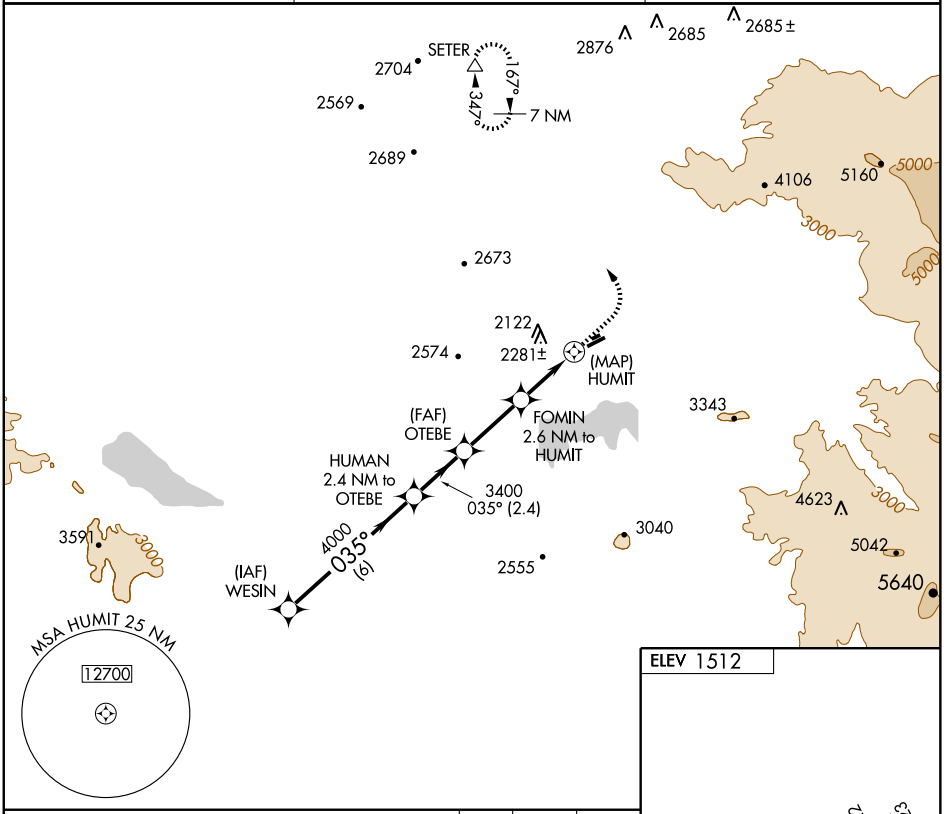
HEMET-RYAN (HMT)

T
A NA

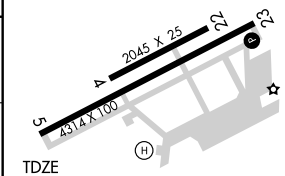
DME/DME RNP- 0.3 NA.
Circling NA at night.

MISSED APPROACH: Climb to 2500, then climbing left turn to 7900 direct SETER and hold, continue climb-in-hold to 7900.

AWOS-3	MARCH APP CON ★	UNICOM
118.375	133.5 324.1	123.0 (CTAF) L

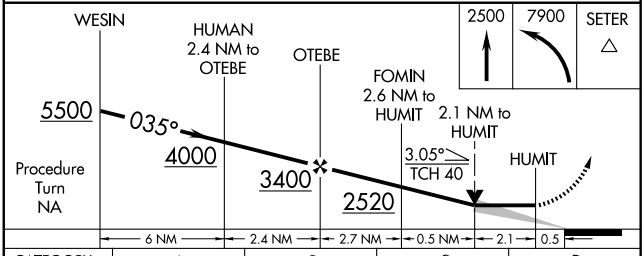


ELEV 1512



Rwy 4-22 restricted for glider operations.

MIRL Rwy 5-23 L



CATEGORY	A	B	C	D
LNAV MDA	2360-1 855 (900-1)	2360-1¼ 855 (900-1¼)	2360-2½ 855 (900-2½)	NA
CIRCLING	2360-1 848 (900-1)	2400-1¼ 888 (900-1¼)	2600-3 1088 (1100-3)	NA

SW-3. 14 JAN 2010 to 11 FEB 2010

RNAV (GPS) RWY 26

APCH CRS	Rwy ldg	TDZE	Arpt Elev
262°	10,000	4012	4012

AL-6624 [USA]

AMEDEE AAF (KAHC)

DME/DME RNP-0.3 NA.
Procedure not authorized at night.
** Circling NA for CATS DE north of Rwy 8-26.

MISSED APPROACH: Climbing left turn to 12,000 direct JEBED and hold, continue climb-in-hold to 12,000. When authorized by ATC, climb in hold to 14,000.

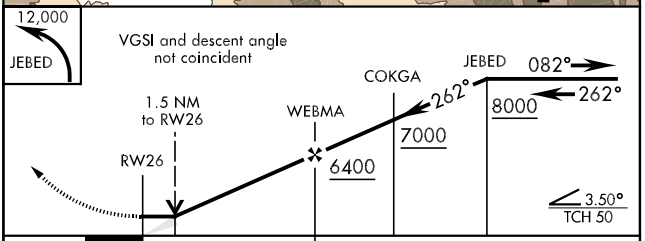
OAKLAND CENTER	
128.8	285.5

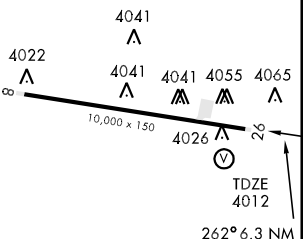
CTAF	
126.1	241.9 ● *

NOT FOR CIVIL USE

SW-2, 14 JAN 2010 to 11 FEB 2010

HETUX
151° (25.6)
12,000
KETBE
6221
8000
151° (11.6)
6720
6571
4895
5000
6000
7000
R2530
5352
4044
RW26
4064
4388
4509
4132
262° (6.3)
6400 (2.6)
(FAF) WEBMA
COKGA
6077
7000
262° (4.3)
(IAF) JEBED
Max holding 230 KIAS
082°
262°
7 NM
4126
4231
NoPT 8000
331° (6.4)
(IAF) SEDTO
11,000
331° (16.4)
7000
MUSTANG
117.9 FMG
Chan 126
MSA RW26 25 NM
10,000
ELEV 4012





CATEGORY	A	B	C	D	E
LNAV MDA	4600-1 588 (600-1)		4600-1½ 588 (600-1½)	4600-1¾ 588 (600-1¾)	4600-2 588 (600-2)
CIRCLING **	4600-1 588 (600-1)		4600-1½ 588 (600-1½)	4600-2 588 (600-2)	

LIRL Rwy 26 ● *

VOR/DME RWY 26

VOR/DME AHC	APCH CRS	Rwy Idg 10,000
109.0	268°	TDZE 4012
Chan 27		Arpt Elev 4012

AL-6624 [USA] AMEDEE AAF (KAHC)

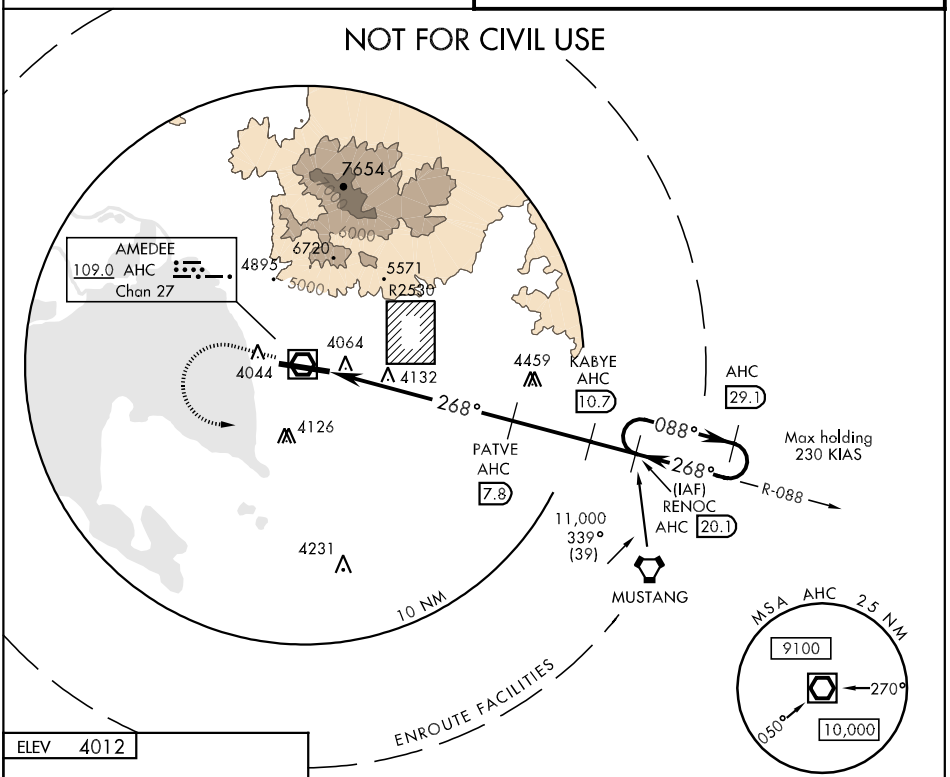
▼ Procedure not authorized at night.
** Circling NA for CATS DE north of Rwy 8-26.

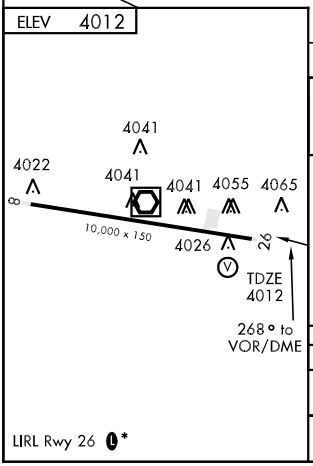
MISSED APPROACH: Climb to 5500, then climbing left turn to 10,500 via AHC R-088 to RENOC (20.1 DME) and hold, continue climb-in-hold to 10,500. When authorized by ATC, climb-in-hold to 14,000.

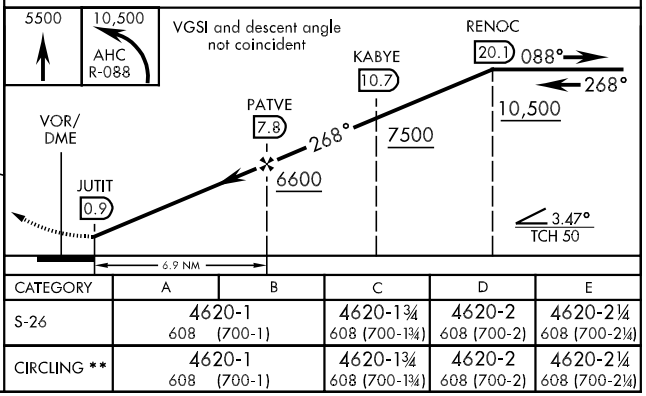
OAKLAND CENTER	
128.8	285.5

CTAF	
126.1	241.9 L*

NOT FOR CIVIL USE







CATEGORY	A	B	C	D	E
S-26	4620-1 608 (700-1)		4620-1¾ 608 (700-1¾)	4620-2 608 (700-2)	4620-2¼ 608 (700-2¼)
CIRCLING **	4620-1 608 (700-1)		4620-1¾ 608 (700-1¾)	4620-2 608 (700-2)	4620-2¼ 608 (700-2¼)

LIRL Rwy 26 L*

SW-2, 14 JAN 2010 to 11 FEB 2010

HOLLISTER, CALIFORNIA AL-6785 (FAA)

WAAS	APP CRS		
CH **93806**	**307°**	Rwy Idg	**6350**
W31A		TDZE	**230**
		Apt Elev	**230**

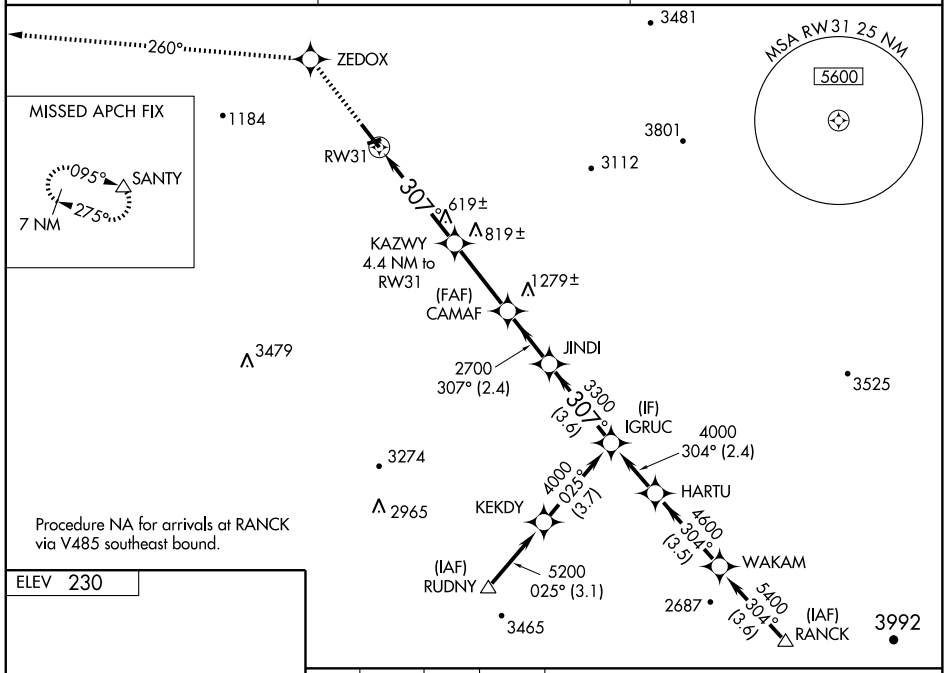
RNAV (GPS) RWY 31

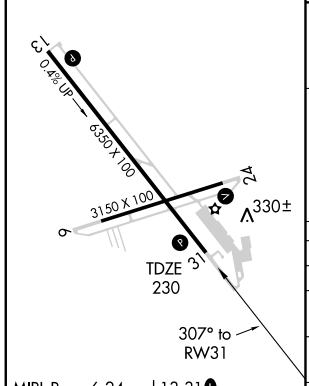
HOLLISTER MUNI (CVH)

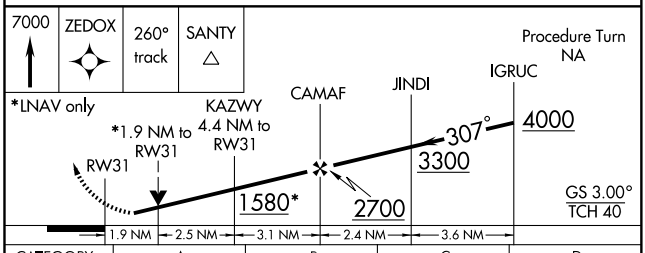
DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA.
Baro-VNAV NA when using Norman Y. Mineta (KSJC) San Jose Intl altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F).
When local altimeter setting not received, use Norman Y. Mineta (KSJC) San Jose Intl altimeter setting, and increase all DAs/MDAs 120 feet and all visibilities ½ mile.
VDP NA when using Norman Y. Mineta (KSJC) San Jose Intl altimeter setting.

MISSED APPROACH: Climb to 7000 direct ZEDOX and via 260° track to SANTY and hold, continue climb-in-hold to 7000.

AWOS-3	NORCAL APP CON	UNICOM
120.425	**124.525 348.675**	**123.0** (CTAF) L







CATEGORY	A	B	C	D
LPV DA	553-1¼ 323 (400-1¼)			NA
LNAV/VNAV DA	801-2 571 (600-2)			NA
LNAV MDA	880-1 650 (700-1)		880-1¾ 650 (700-1¾)	NA
CIRCLING	880-1 650 (700-1)		880-1¾ 650 (700-1¾)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

COPTER NDB RWY 32

NDB HGT	APCH CRS	Rwy Idg	570
209	295°	TDZE	1017
		Arpt Elev	1017

AL-3073 [USA]

TUSI AHP (KHGT)

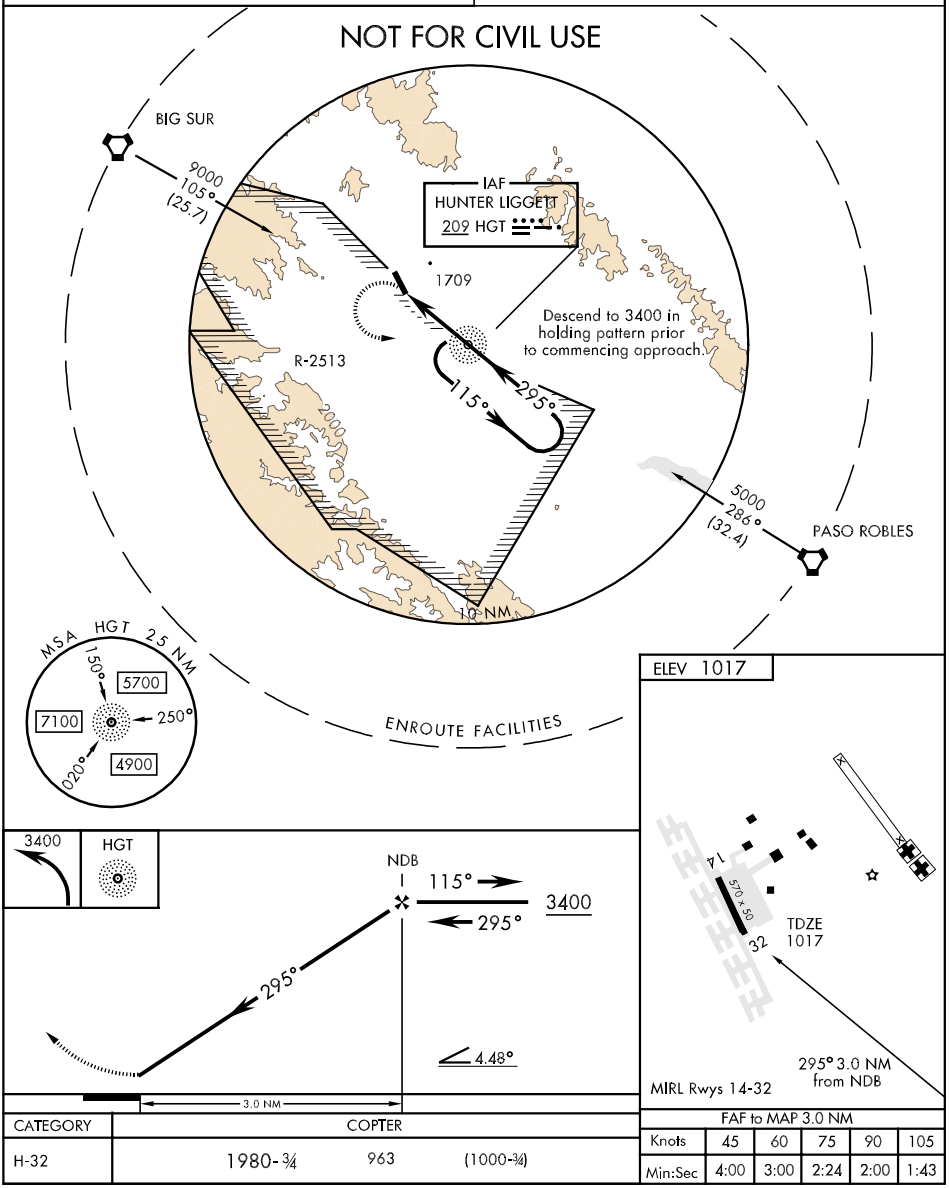
NA

Procedure NA when Fort Hunter-Liggett altimeter setting not available.

MISSED APPROACH: Climbing left turn to 3400 direct HGT NDB and hold.

OAKLAND CENTER	RANGE CON/OPS
128.7 307.0	41.05 126.2 229.5

NOT FOR CIVIL USE



CATEGORY	COPTER			
H-32	1980-¾	963	(1000-¾)	

FAF to MAP 3.0 NM					
Knots	45	60	75	90	105
Min:Sec	4:00	3:00	2:24	2:00	1:43

COPTER RNAV (GPS) RWY 32

APCH CRS	Rwy Idg	570
301°	TDZE	1017
	Arpt Elev	1017

AL-3073 (USA)

TUSI AHP (KHGT)

NA
Procedure NA when Fort Hunter-Liggett altimeter setting not available.
Limit Final and Missed Approach to 90 KIAS.

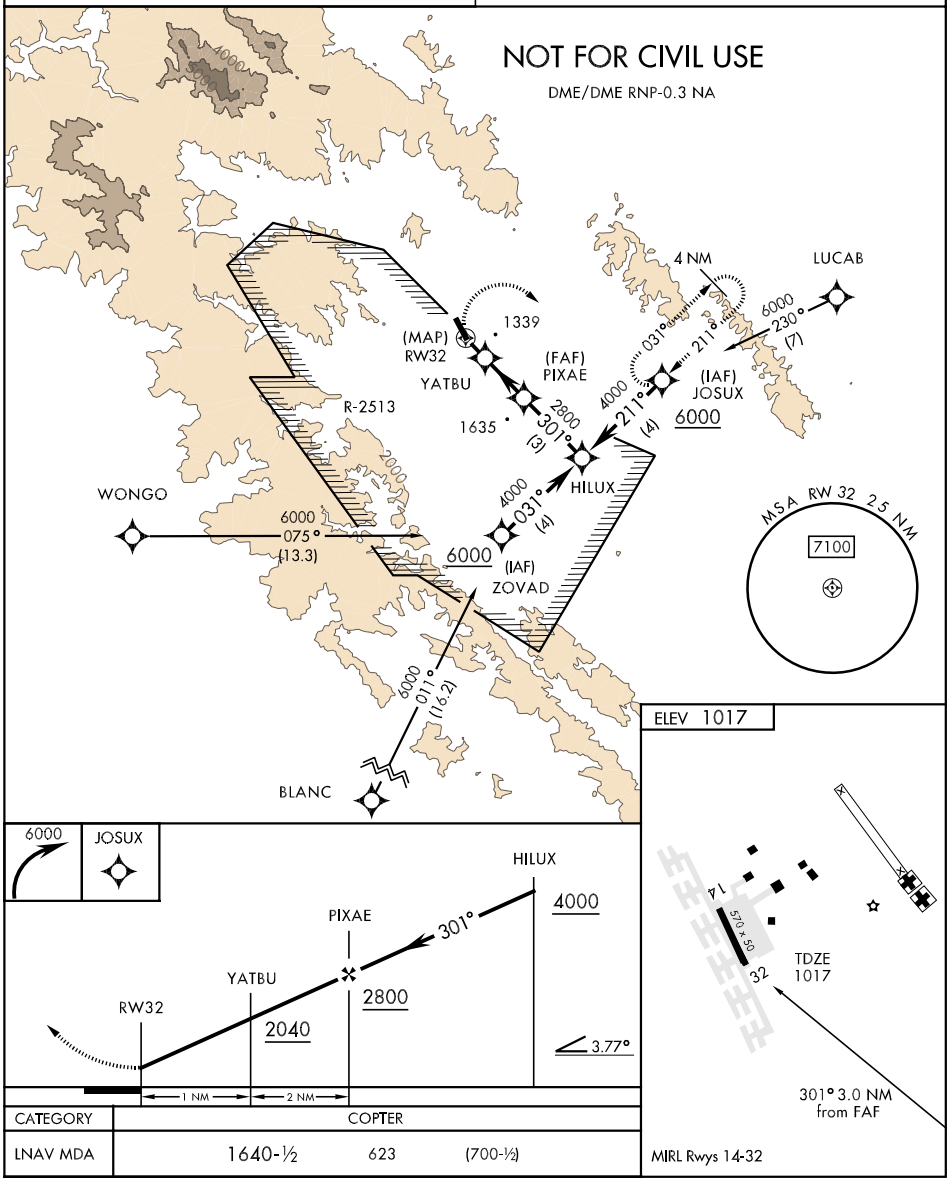
MISSED APPROACH: Climbing right turn to 6000 direct JOSUX and hold.

OAKLAND CENTER	RANGE CON/OPS
128.7 307.0	41.05 126.2 229.5

NOT FOR CIVIL USE

DME/DME RNP-0.3 NA

SW-3, 14 JAN 2010 to 11 FEB 2010



CATEGORY	COPTER		
LNAV MDA	1640-½	623	(700-½)

COPTER TACAN RWY 27

TACAN	NRS
Chan	29

APCH CRS
255°

Rwy ldg	4999
TDZE	23
Arpt Elev	24

AL-307 [USN]

IMPERIAL BEACH NOLF (REAM FIELD) (KNRS)

▼ Use by tilt rotor aircraft not authorized.

MISSED APPROACH: Climb to 1600 via NRS R-075 to NRS TACAN, then via NRS R-270 to FOLTA and hold. Remain within 5.2 DME when established in holding.

ATIS ★	SOCAL APP CON	IMPERIAL BEACH TOWER ★	GND CON	ASOS
276.2	125.15 317.55	120.65 239.25	285.575	

RADAR REQUIRED

1350

IMPERIAL BEACH
Chan 29 NRS

Turn in holding required prior to crossing ZIPAD. Remain within 4.7 DME when established in holding.

507

FOLTA
NRS
2.5

R-270

090°

270°

256

189

075°

876

255°

R-075

739

UNITED STATES
MEXICO

(IAF) CESVI
JULAS NRS
NRS
1.5
1

RUMGE
NRS
3

ZIPAD
NRS
4

UNITED STATES
MEXICO

892

930

1345

5 NM

820

MSA NRS 25 NM

4700

195°

105°

5900

2000

285°

015°

5300

JULAS 1
NRS R-075
1900

075°

Remain within 4.7 DME

255°

RUMGE 3

ZIPAD NRS 4 R-075

TACAN

CESVI 1.5

CISAV .5

255°

1900

1600

860

VDA CESVI to thld

5.43°

TCH 50

1 NM

1.5 NM

1600 NRS R-075

NRS

NRS R-270

ELEV 24

66

2241 x 150

85

4999 x 340

TDZE 23

255° to TACAN

HIRL Rwy 9-27

CATEGORY	COPTER		
H-27	340-½	317	(400-½)
CIRCLING	NOT AUTHORIZED		

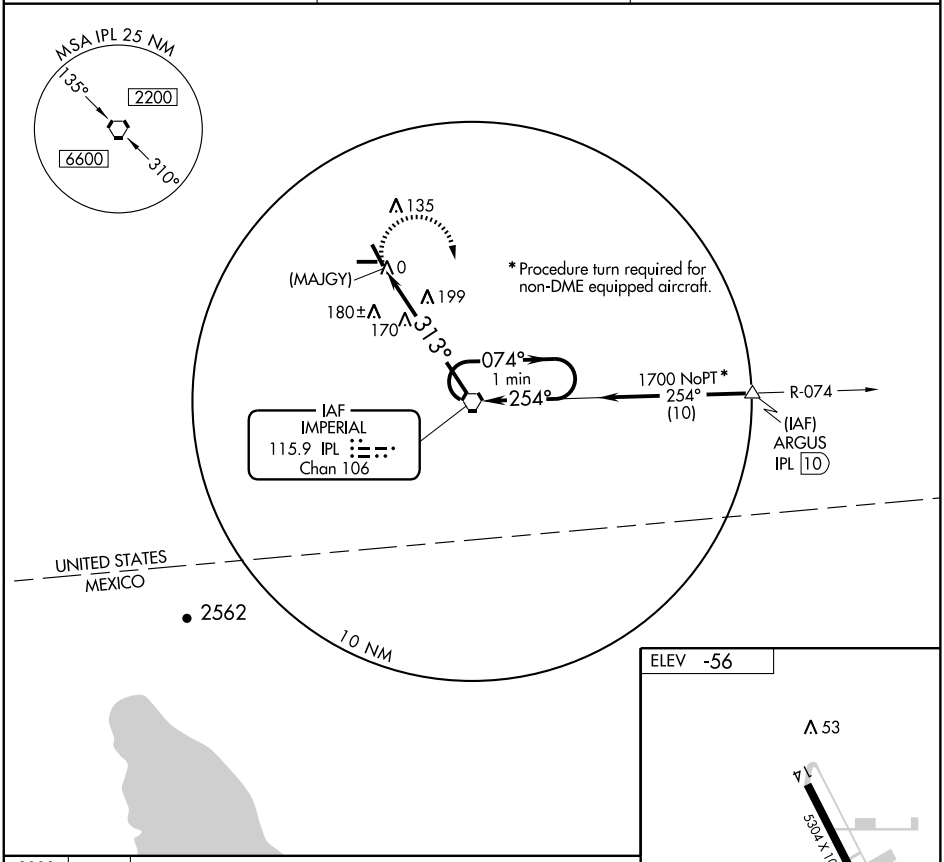
SW-3, 14 JAN 2010 to 11 FEB 2010

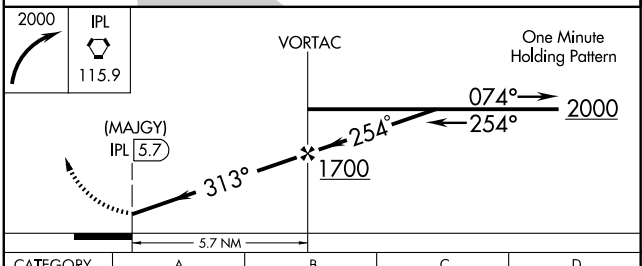
VORTAC IPL 115.9 Chan 106	APP CRS 313°	Rwy Idg N/A TDZE N/A Apt Elev -56

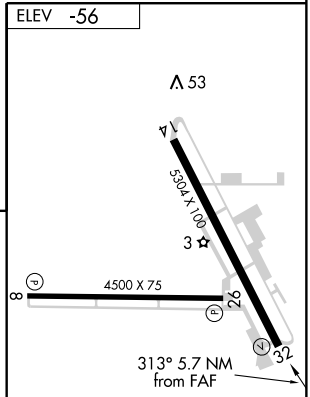
VOR or GPS-A
IMPERIAL COUNTY (IPL)

MISSED APPROACH: Climbing right turn to 2000 direct IPL VORTAC and hold.

ASOS	LOS ANGELES CENTER	UNICOM
132.175	128.6 291.7	122.7 (CTAF) L







MIRL Rwys 8-26 and 14-32 L

CATEGORY	A	B	C	D
CIRCLING	560-1 616 (700-1)		560-1¾ 616 (700-1¾)	560-2 616 (700-2)

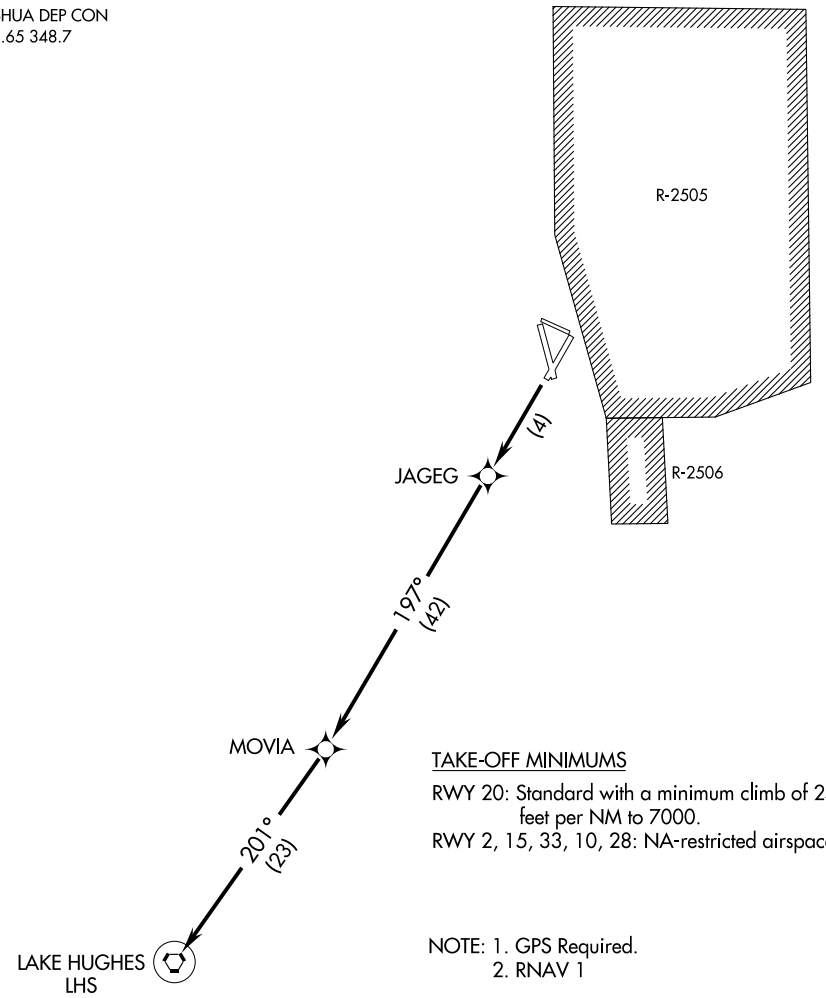
FAF to MAP 5.7 NM

Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54

SW-3, 14 JAN 2010 to 11 FEB 2010

LAKE HUGHES TWO DEPARTURE (RNAV) (OBSTACLE)

JOSHUA DEP CON
133.65 348.7



TAKE-OFF MINIMUMS

RWY 20: Standard with a minimum climb of 240 feet per NM to 7000.
RWY 2, 15, 33, 10, 28: NA-restricted airspace.

NOTE: 1. GPS Required.
2. RNAV 1

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 20: Climb direct JAGEG then continue climb to 8000 via 197° track to MOVIA and 201° track to LHS VORTAC. Thence via assigned route and altitude.

TAKE-OFF RUNWAYS 2, 33, 15, 10, and 28: NA.

APP CRS	Rwy Idg	6275
017°	TDZE	2442
	Apt Elev	2457

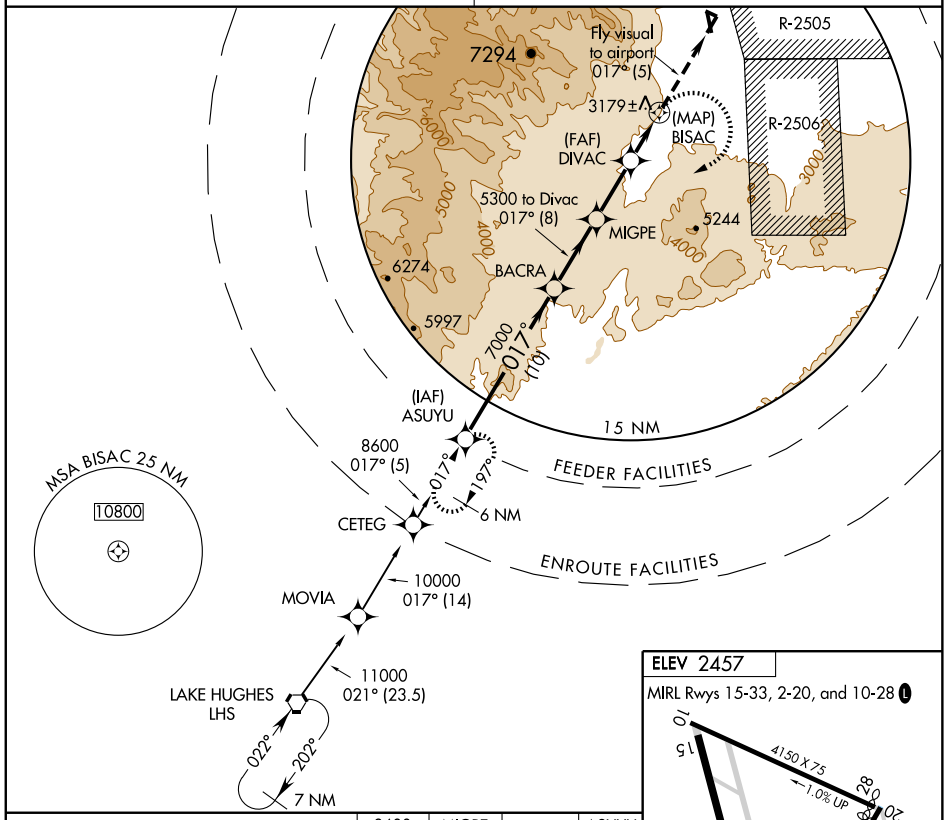
RNAV (GPS) Y RWY 2

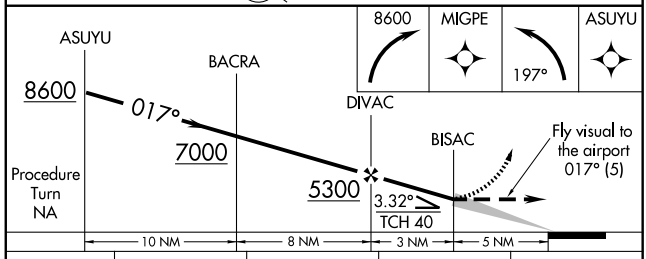
INYOKERN (IYK)

GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA. Except for operators with approved weather reporting service, use NAS China Lake altimeter setting, if not available procedure NA. Procedure NA at night.

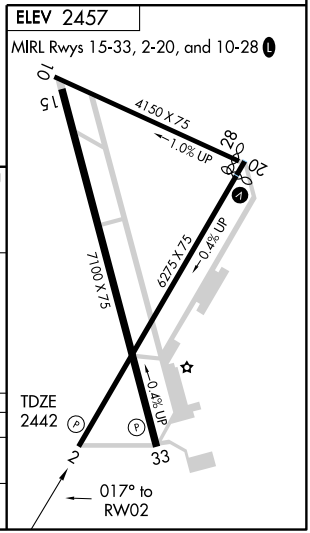
MISSED APPROACH: Climbing right turn to 8600 direct MIGPE WP then left turn via 197° track to ASUYU WP and hold.

JOSHUA APP CON	UNICOM
133.65 348.7	122.8 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	4100-2	1658 (1700-2)	4100-3 1658 (1700-3)	NA
CIRCLING	4100-2	1643 (1700-2)	4100-3 1643 (1700-3)	NA



SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS		
017°	Rwy Idg	6275
	TDZE	2442
	Apt Elev	2457

RNAV (GPS) Z RWY 2

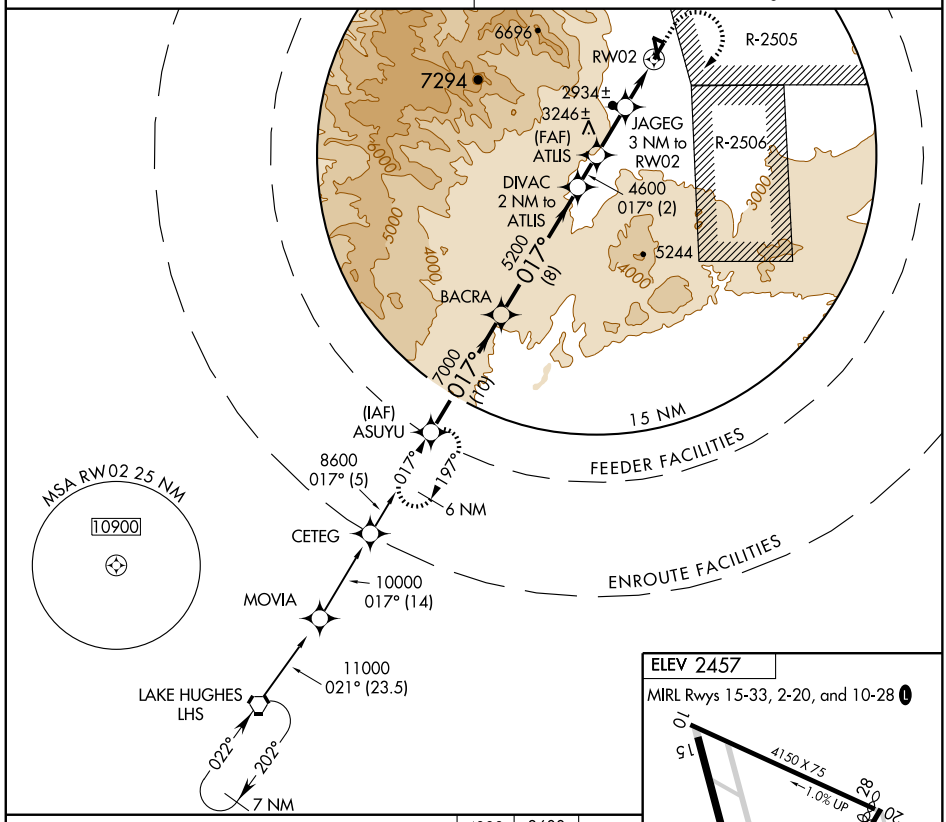
INYOKERN (IYK)

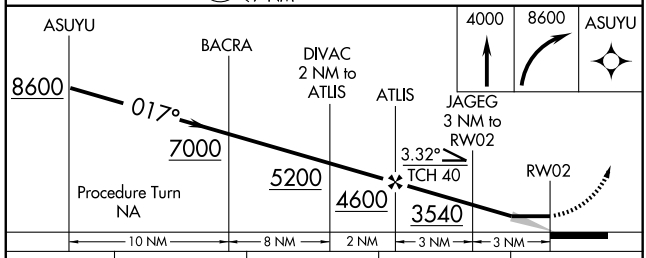
T A NA

GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA. Except for operators with approved weather reporting services, use NAS China Lake altimeter setting, if not available procedure NA. Procedure NA at night. Procedure NA when R-2505 or R-2506 active.

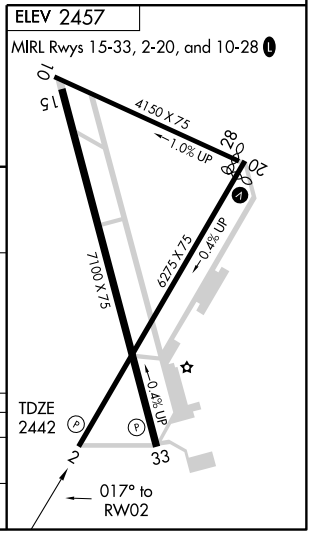
MISSED APPROACH: Climb to 4000 then climbing right turn to 8600 direct ASUYU WP and hold.

JOSHUA APP CON	UNICOM
133.65 348.7	122.8 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	3160-1	718 (800-1)	3160-2 718 (800-2)	NA
CIRCLING	3160-1	703 (800-1)	3160-2 703 (800-2)	NA



SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3401
006°	TDZE	1690
	Apt Elev	1690

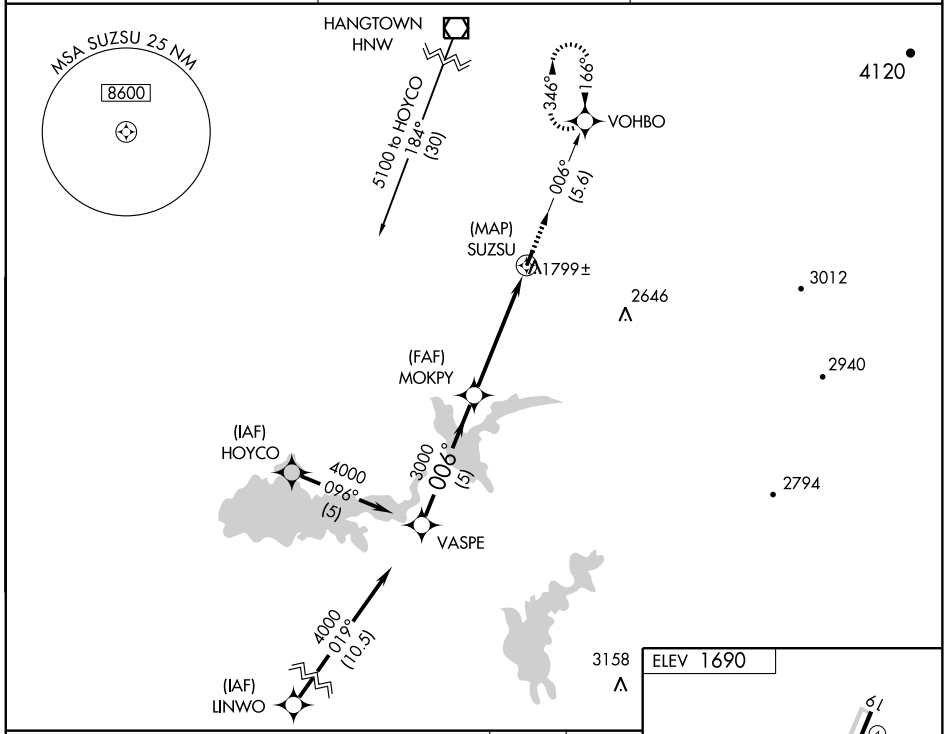
GPS RWY 1

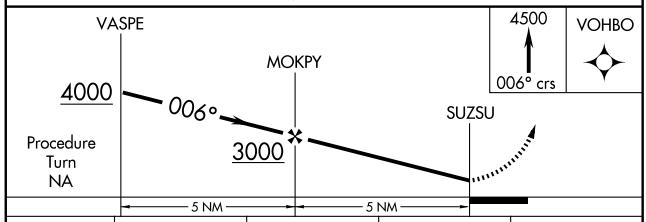
JACKSON/ WESTOVER FIELD AMADOR COUNTY(JAQ)

T NA — If local altimeter not received, use Sacramento Executive altimeter setting.

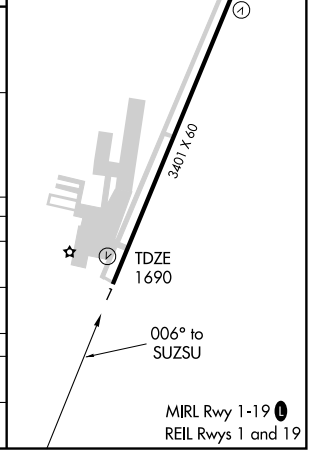
MISSED APPROACH: Climb to 4500 via 006° course to VOHBO WP and hold.

AWOS-3	NORCAL APP CON	UNICOM
121.125	125.1 363.2	123.075 (CTAF) L





CATEGORY	A	B	C	D
S-1	2060-1 370 (400-1)		NA	
CIRCLING	2200-1 510 (600-1)		NA	
SACRAMENTO EXECUTIVE ALTIMETER SETTING MINIMUMS				
S-1	2380-1 690 (700-1)		NA	
CIRCLING	2520-1 830 (900-1)	2520-1¼ 830 (900-1¼)	NA	



SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC LIN	APP CRS	Rwy Idg	3401
114.8	012°	TDZE	1690
Chan 95		Apt Elev	1690

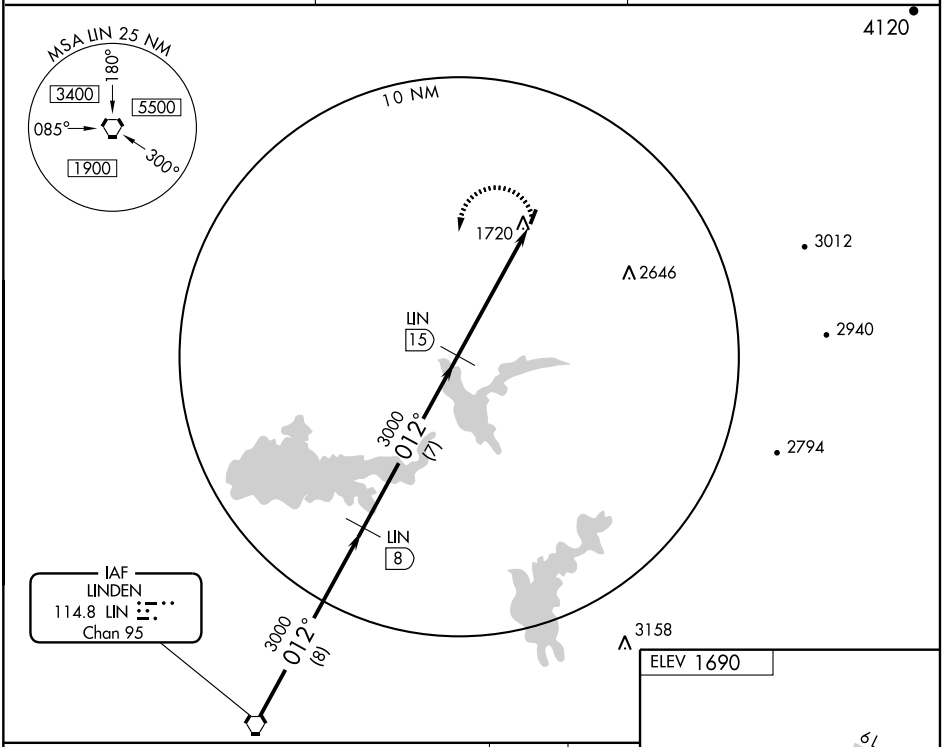
VOR/DME RWY 1

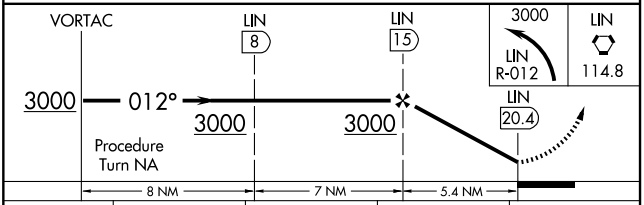
JACKSON/ WESTOVER FIELD AMADOR COUNTY(JAQ)

V A NA If local altimeter not received, use Sacramento Executive altimeter setting.

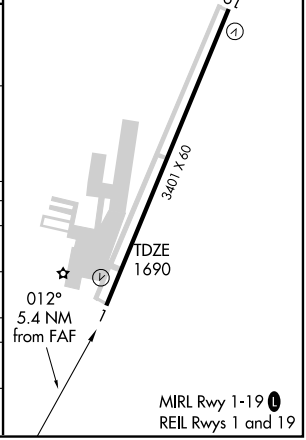
MISSED APPROACH: Climbing left turn to 3000 via LIN R-012 to LIN VORTAC.

AWOS-3	NORCAL APP CON	UNICOM
121.125	125.1 363.2	123.075 (CTAF) L





CATEGORY	A	B	C	D
S-1	2080-1 390 (400-1)	2080-1¼ 390 (400-1¼)	NA	
CIRCLING	2200-1 510 (600-1)	2200-1¼ 510 (600-1¼)	NA	
SACRAMENTO EXECUTIVE ALTIMETER SETTING MINIMUMS				
S-1	2380-1 690 (700-1)	2380-1¼ 690 (700-1¼)	NA	
CIRCLING	2520-1 830 (900-1)	2520-1¼ 830 (900-1¼)	NA	



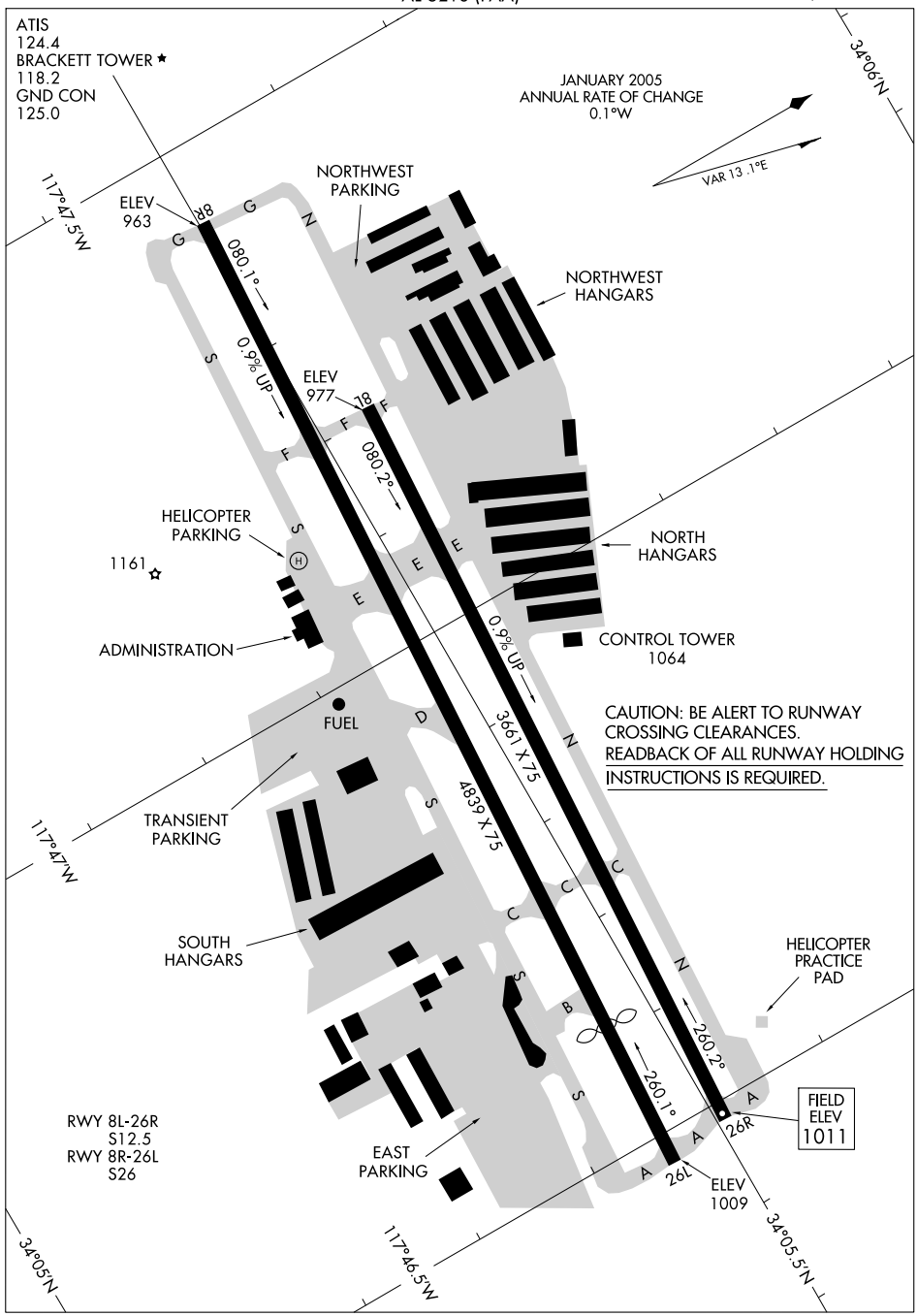
SW-2, 14 JAN 2010 to 11 FEB 2010

09295

AIRPORT DIAGRAM

AL-5218 (FAA)

LA VERNE/BRACKETT FIELD (POC)
LA VERNE, CALIFORNIA



SW-3, 14 JAN 2010 to 11 FEB 2010

LOC I-POC	APP CRS	Rwy Idg	4151
110.5	259°	TDZE	1002
		Apt Elev	1011

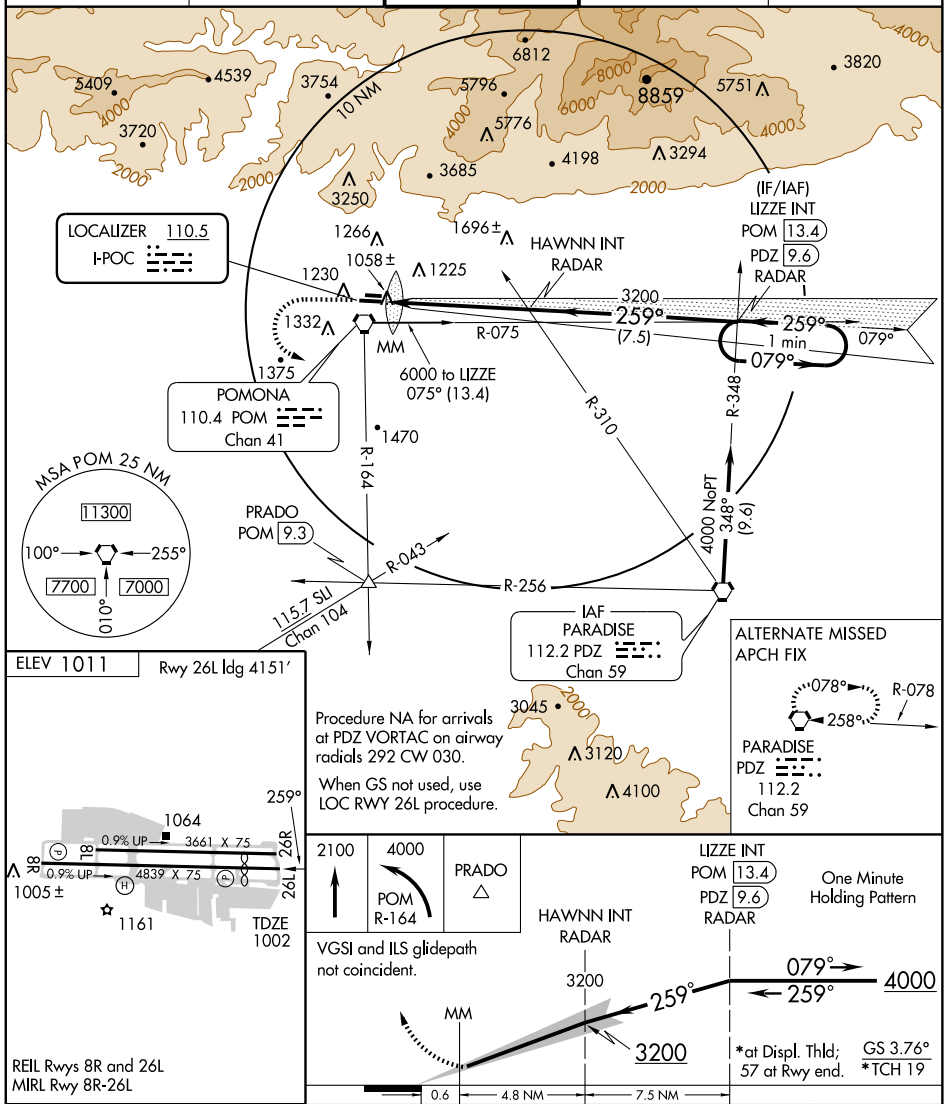
ILS RWY 26L

LA VERNE/ BRACKETT FIELD (POC)

Visibility reduction by helicopters NA.
When local altimeter setting not received, use Ontario Intl altimeter setting and increase DA to 1363.

MISSED APPROACH: Climb to 2100, then climbing left turn to 4000 via POM VORTAC R-164 to PRADO INT/POM 9.3 DME.

ATIS	SOCAL APP CON	BRACKETT TOWER ★	GND CON	UNICOM
124.4	125.5 349.0	118.2 (CTAF)	125.0	122.95



ELEV 1011 Rwy 26L Idg 4151′

REIL Rwys 8R and 26L
MIRL Rwy 8R-26L

Knots	60	90	120	150	180
Min:Sec					

2100	4000	PRADO
	POM R-164	△

VGSI and ILS glidepath not coincident.

CATEGORY	A	B	C	D
S-ILS 26L	1332-1 330 (400-1)		NA	

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC I-POC	APP CRS	Rwy Idg	4151
110.5	259°	TDZE	1002
		Apt Elev	1011

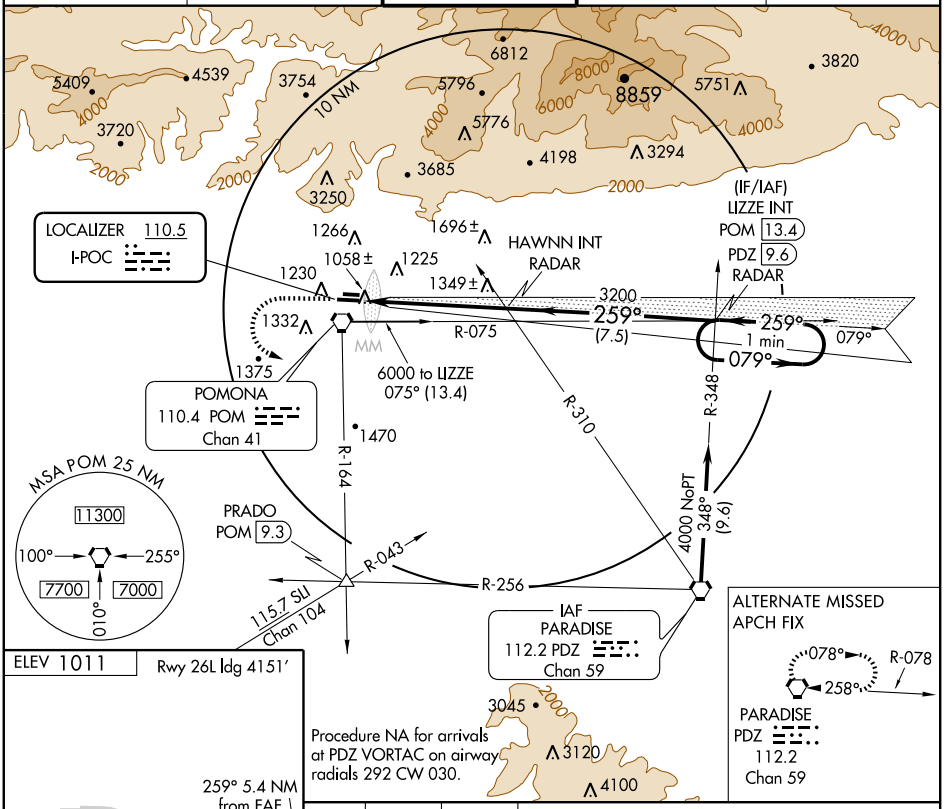
LOC RWY 26L

LA VERNE/BRACKETT FIELD (POC)

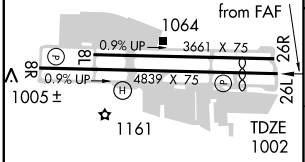
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Ontario Intl altimeter setting and increase all MDAs 40 feet.

MISSED APPROACH: Climb to 2100 then climbing left turn to 4000 via POM VORTAC R-164 to PRADO INT/POM 9.3 DME.

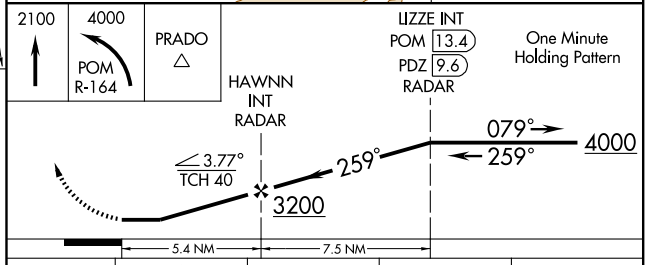
ATIS	SOCAL APP CON	BRACKETT TOWER★	GND CON	UNICOM
124.4	125.5 349.0	118.2 (CTAF)	125.0	122.95



ELEV 1011 Rwy 26L Idg 4151′



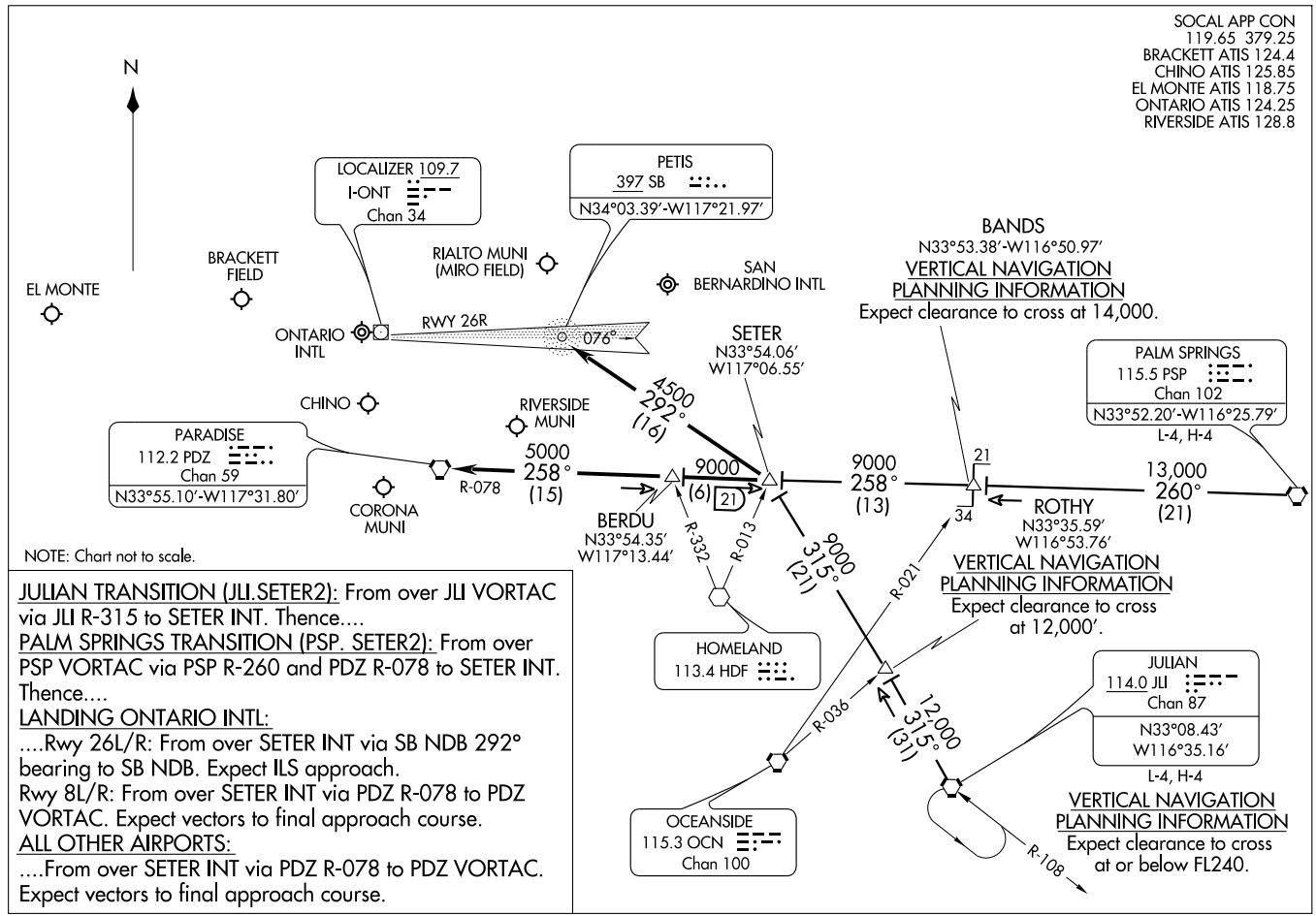
REIL Rwys 8R and 26L
MIRL Rwy 8R-26L



FAF to MAP 5.4 NM					
Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

CATEGORY	A	B	C	D
S-26L	1600-1 598 (600-1)		NA	
CIRCLING	1680-1 669 (700-1)		NA	

SW-3, 14 JAN 2010 to 11 FEB 2010



NOTE: Chart not to scale.

JULIAN TRANSITION (JLI.SETER2): From over JLI VORTAC via JLI R-315 to SETER INT. Thence....

PALM SPRINGS TRANSITION (PSP. SETER2): From over PSP VORTAC via PSP R-260 and PDZ R-078 to SETER INT. Thence....

LANDING ONTARIO INTL:

....Rwy 26L/R: From over SETER INT via SB NDB 292° bearing to SB NDB. Expect ILS approach.

Rwy 8L/R: From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ALL OTHER AIRPORTS:

....From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ST-965 (FAA)

ONTARIO, CALIFORNIA

VORTAC POM	APP CRS	Rwy Idg	N/A
110.4	344°	TDZE	N/A
Chan 41		Apt Elev	1011

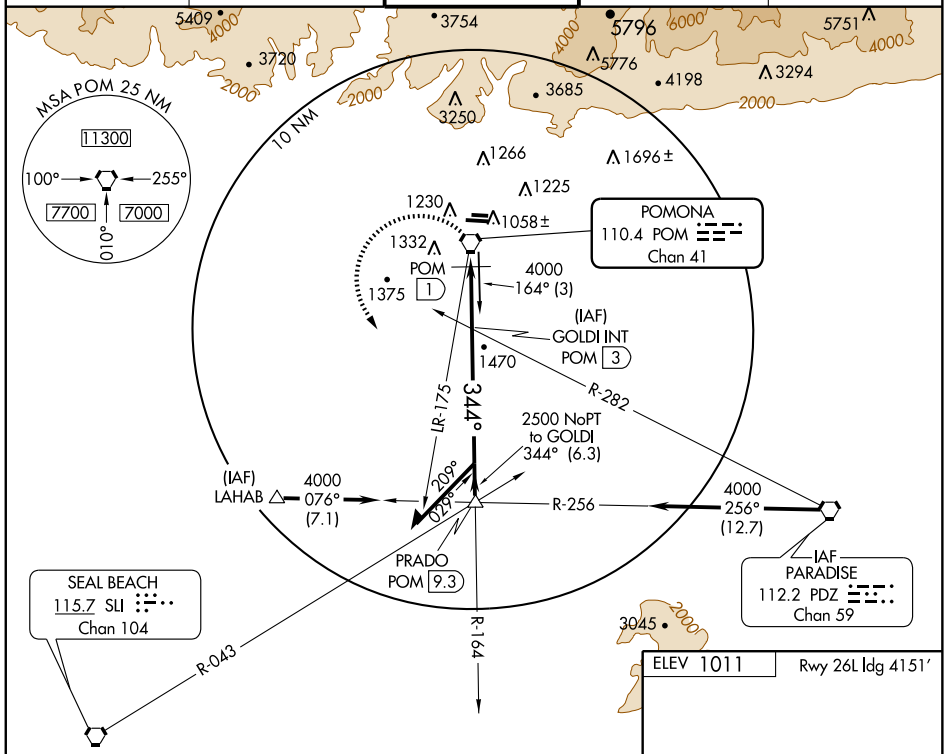
VOR or GPS-A

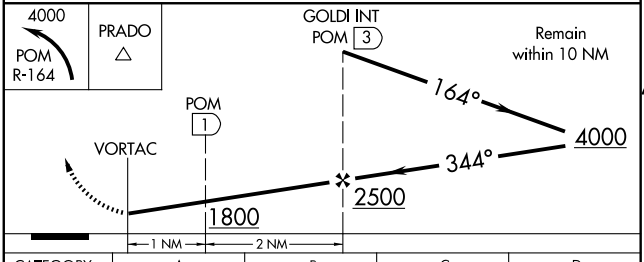
LA VERNE/BRACKETT FIELD (POC)

When local altimeter setting not received, use Ontario Intl altimeter setting and increase all MDA 40 feet and visibility Cat. C ¼ mile.

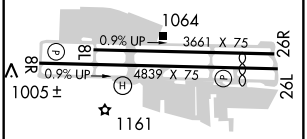
MISSED APPROACH: Climbing left turn to 4000 via POM R-164 to PRADO Int.

ATIS	SOCAL APP CON	BRACKETT TOWER ★	GND CON	UNICOM
124.4	125.5 349.0	118.2 (CTAF)	125.0	122.95





ELEV 1011 Rwy 26L ldg 4151′

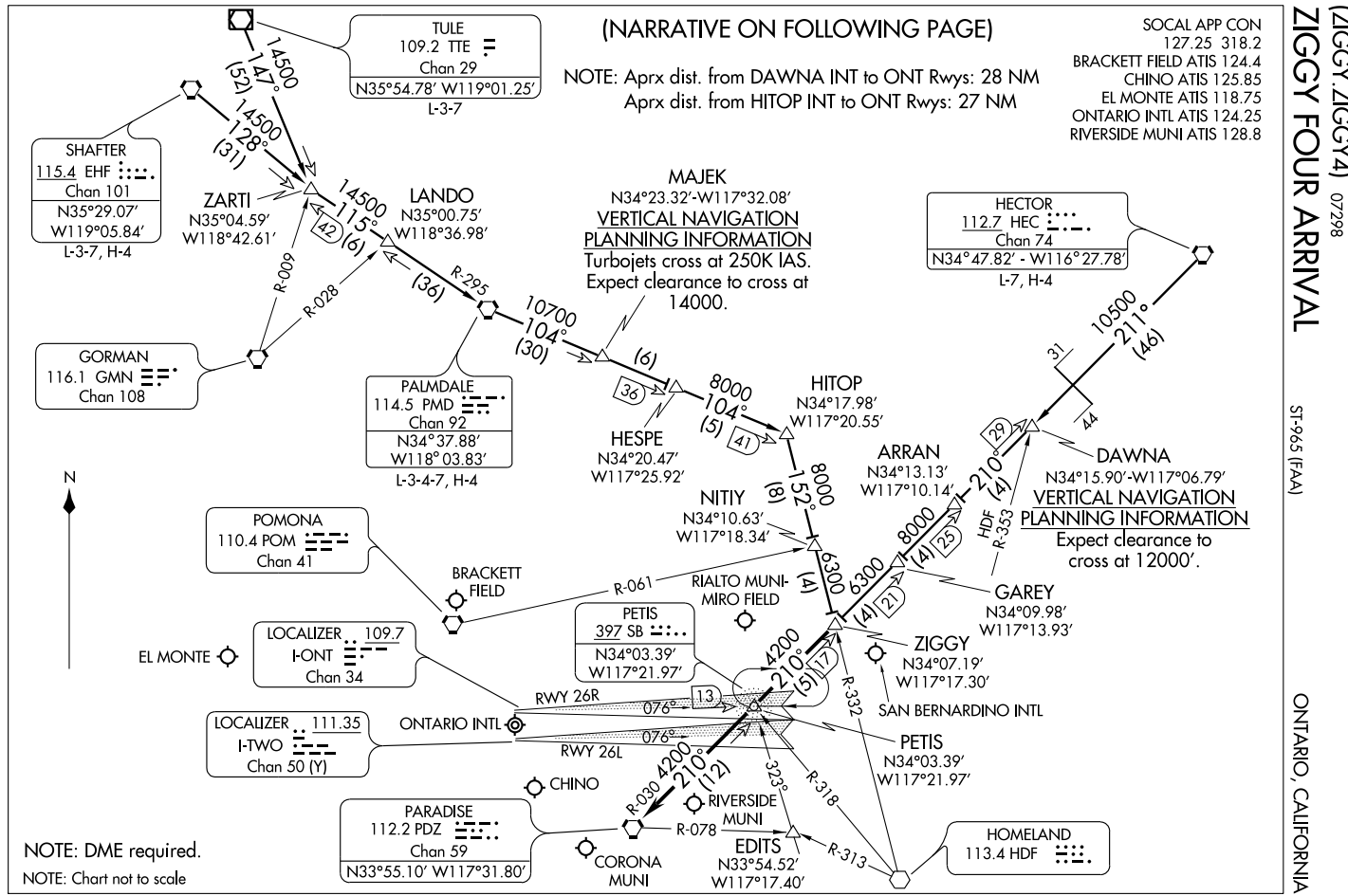


CATEGORY	A	B	C	D
CIRCLING	1800-1 789 (800-1)	1800-1¼ 789 (800-1¼)	1800-2¼ 789 (800-2¼)	NA
DME MINIMUMS				
CIRCLING	1640-1 629 (700-1)		1680-1¾ 669 (700-1¾)	NA

REIL Rwys 8R and 26L
MIRL Rwy 8R-26L

Knots	60	90	120	150	180
Min:Sec					

SW-3, 14 JAN 2010 to 11 FEB 2010


(NARRATIVE ON FOLLOWING PAGE)
NOTE: Aprx dist. from DAWNA INT to ONT Rwys: 28 NM
Aprx dist. from HITOP INT to ONT Rwys: 27 NM
SOCAL APP CON
127.25 318.2
BRACKETT FIELD ATIS 124.4
CHINO ATIS 125.85
EL MONTE ATIS 118.75
ONTARIO INTL ATIS 124.25
RIVERSIDE MUNI ATIS 128.8
ZIGGY FOUR ARRIVAL
(ZIGGY.ZIGGY4) 07298
ST-965 (FAA)
ONTARIO, CALIFORNIA
TULE
109.2 TTE
Chan 29
N35°54.78' W119°01.25'
L-3-7
SHAFTER
115.4 EHF
Chan 101
N35°29.07'
W119°05.84'
L-3-7, H-4
ZARTI
N35°04.59'
W118°42.61'
LANDO
N35°00.75'
W118°36.98'
MAJEK
N34°23.32'-W117°32.08'
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojets cross at 250K IAS.
Expect clearance to cross at
14000.
HECTOR
112.7 HEC
Chan 74
N34°47.82' - W116°27.78'
L-7, H-4
GORMAN
116.1 GMN
Chan 108
PALMDALE
114.5 PMD
Chan 92
N34°37.88'
W118°03.83'
L-3-4-7, H-4
HESPE
N34°20.47'
W117°25.92'
HITOP
N34°17.98'
W117°20.55'
ARRAN
N34°13.13'
W117°10.14'
DAWNA
N34°15.90'-W117°06.79'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance to
cross at 12000'.
NITIY
N34°10.63'
W117°18.34'
POMONA
110.4 POM
Chan 41
BRACKETT
FIELD
RIALTO MUNI-
MIRO FIELD
GAREY
N34°09.98'
W117°13.93'
PETIS
397 SB
N34°03.39'
W117°21.97'
ZIGGY
N34°07.19'
W117°17.30'
EL MONTE
LOCALIZER 109.7
I-ONT
Chan 34
SAN BERNARDINO INTL
RWY 26R
RWY 26L
ONTARIO INTL
LOCALIZER 111.35
I-TWO
Chan 50 (Y)
PETIS
N34°03.39'
W117°21.97'
CHINO
PARADISE
112.2 PDZ
Chan 59
N33°55.10' W117°31.80'
RIVERSIDE
MUNI
CORONA
MUNI
EDITS
N33°54.52'
W117°17.40'
HOMELAND
113.4 HDF
NOTE: DME required.
NOTE: Chart not to scale
N

ZIGGY FOUR ARRIVAL

ARRIVAL ROUTE DESCRIPTION

HECTOR TRANSITION (HEC.ZIGGY4): From over HEC VORTAC via HEC R-211 and PDZ R-030 to ZIGGY INT. Thence . . . .

PALMDALE TRANSITION (PMD.ZIGGY4): From over PMD VORTAC via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

SHAFTER TRANSITION (EHF.ZIGGY4): From over EHF VORTAC via EHF R-128 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

TULE TRANSITION (TTE.ZIGGY4): From over TTE VOR/DME via TTE R-147 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

LANDING ONTARIO INTL:

. . . . RWY 8L/R: From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

. . . . RWY 26 L/R: From over ZIGGY INT via direct PETIS NDB or PDZ R-030 to PETIS INT; expect radar vectors for ILS approach.

ALL OTHER AIRPORTS:

. . . . From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

LOST COMMUNICATIONS: For Rialto, California, NDB-A approach, proceed from PDZ VORTAC via PDZ R-078 to EDITS INT, maintain 4200'.

SW-3, 14 JAN 2010 to 11 FEB 2010

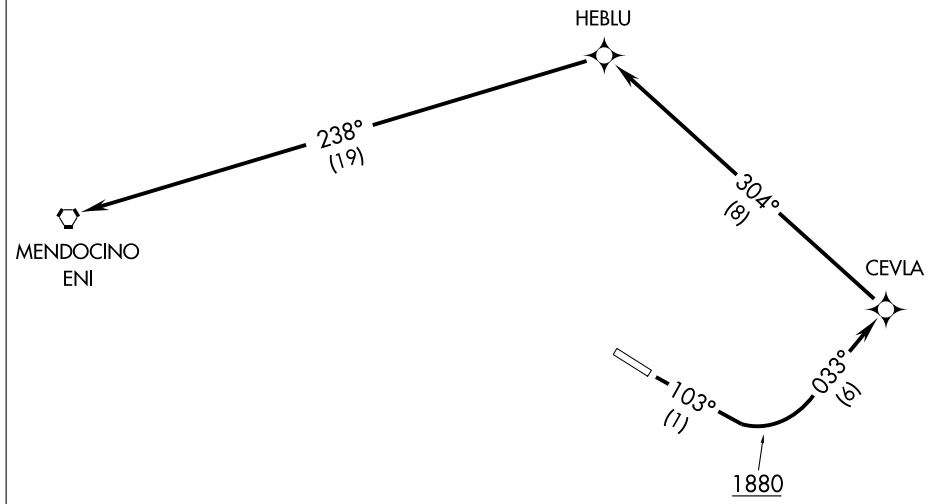
LAKEPORT TWO DEPARTURE (RNAV)

OAKLAND CENTER
127.8 353.5
AWOS-2
118.35

TAKE-OFF MINIMUMS
Rwy 10: Standard with minimum climb of 496′ per NM to 4500.
Rwy 28: NA- Rapidly rising terrain.

NOTE: TAKE-OFF Rwy 10: Do not exceed 175 knots until passing HEBLU.

NOTE: 1. GPS Required.
2. RNAV 1.



TAKE-OFF OBSTACLE NOTES

Rwy 10: Vehicle on road 347′ from DER, 7′ right of centerline, 15′ AGL/1394′ MSL.
Trees beginning 280′ from DER, 201′ left of centerline, up to 100′ AGL/1479′ MSL.
Trees beginning 494′ from DER, 219′ right of centerline, up to 100′ AGL/1479′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 10: Climb heading 103° to 1880, then climb to 6000 on 033° course to CEVLA, then via 304° track to HEBLU, then via 238° track to ENI VORTAC, thence . . . .

. . . . via assigned route, expect clearance to filed altitude 10 minutes after departure.

APP CRS	Rwy Idg	N/A
164°	TDZE	N/A
	Apt Elev	1379

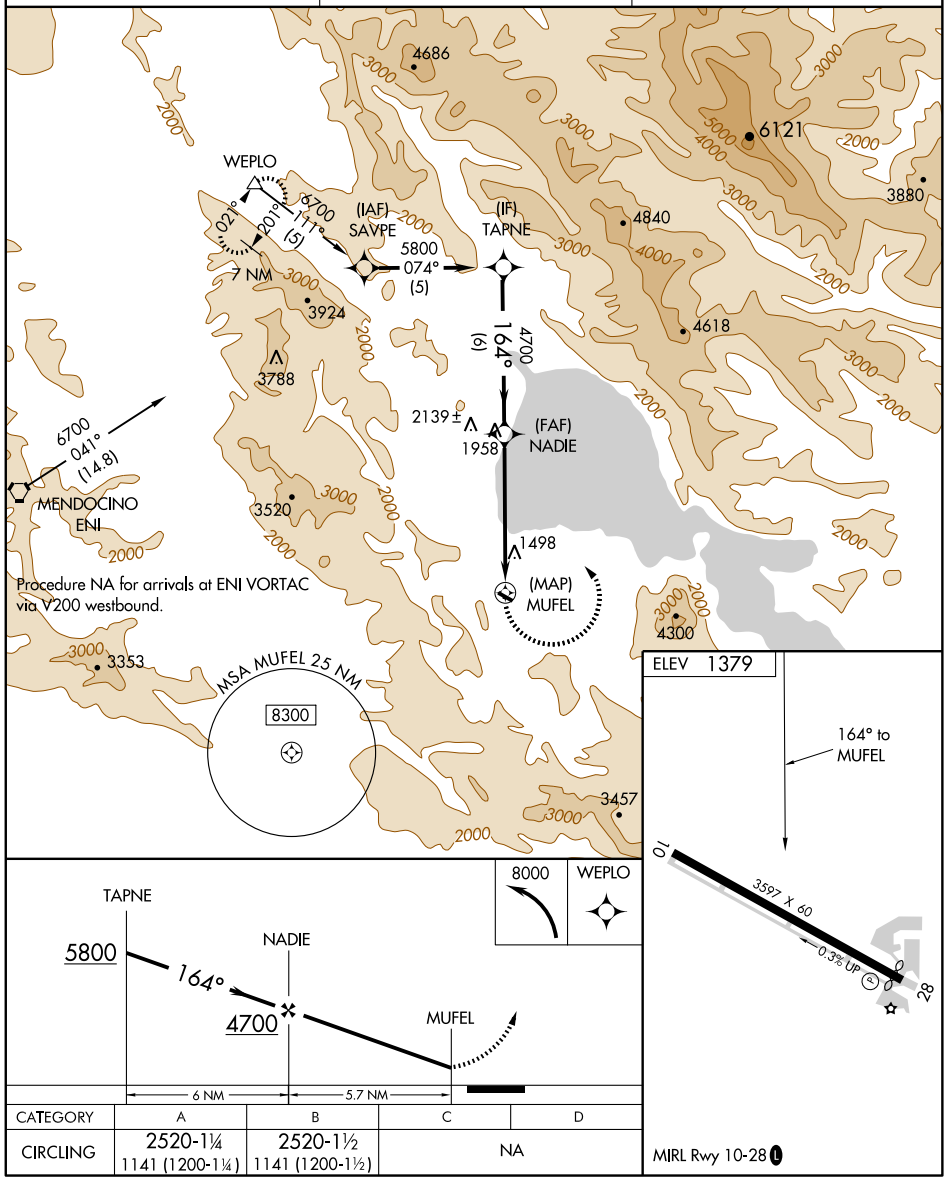
RNAV (GPS)-A

LAKEPORT/ LAMPSON FIELD (102)

Circling NA south of Rwy 10 and 28. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Ukiah altimeter setting and increase all MDA 560 feet.

MISSED APPROACH: Climbing left turn to 8000 direct WEPLO and hold, continue climb-in-hold to 8000.

AWOS-2	OAKLAND CENTER	UNICOM
118.35	127.8 353.5	122.8 (CTAF) L



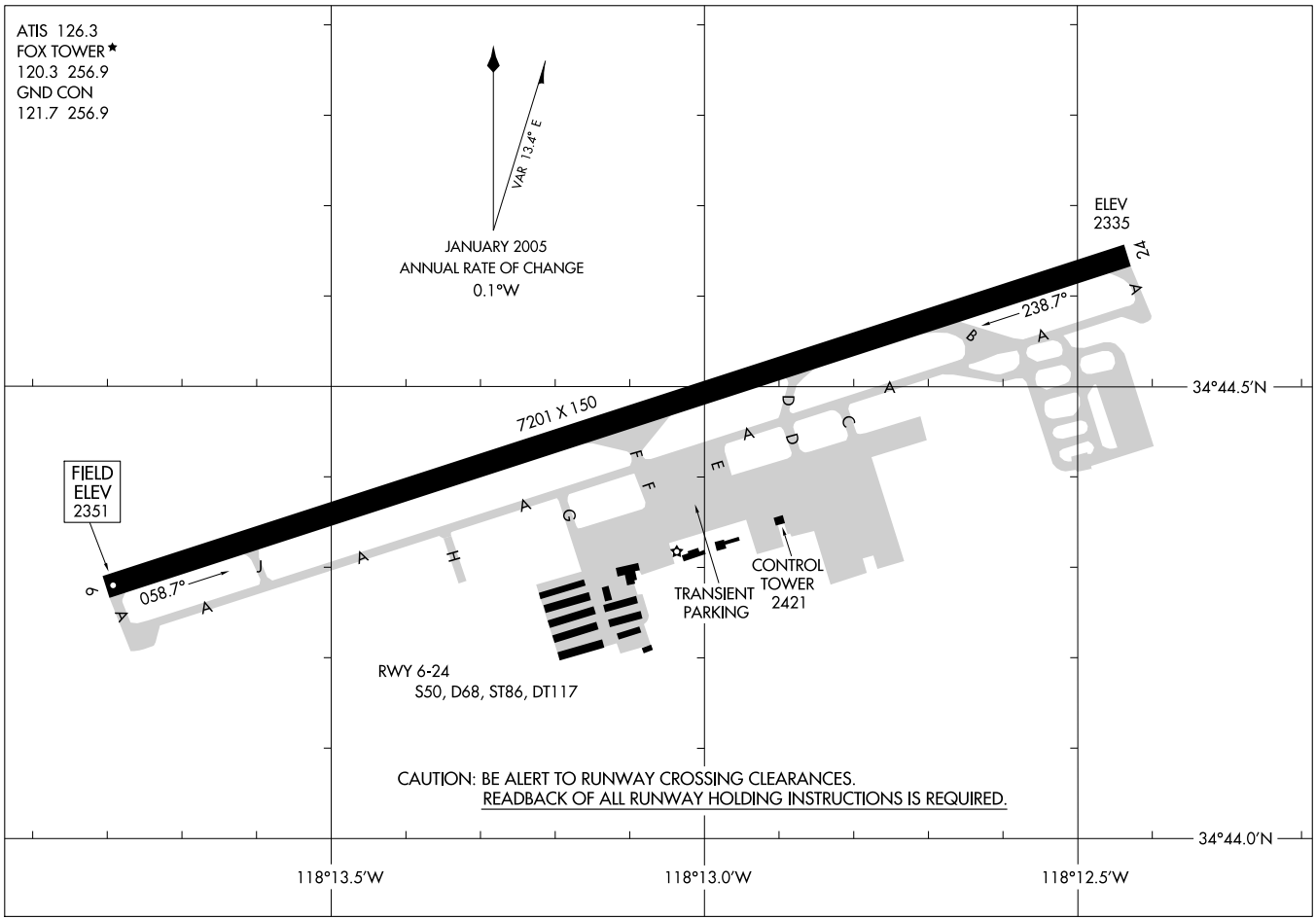
CATEGORY	A	B	C	D
CIRCLING	2520-1¼ 1141 (1200-1¼)	2520-1½ 1141 (1200-1½)	NA	

MIRL Rwy 10-28 L

SW-2, 14 JAN 2010 to 11 FEB 2010

AIRPORT DIAGRAM

LANCASTER/ GENERAL WILLIAM J. FOX AIRFIELD (WJF)
AL-5065 (FAA)
LANCASTER, CALIFORNIA



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

NDB GWF	APP CRS	Rwy Idg	N/A
282	113°	TDZE	N/A
		Apt Elev	2351

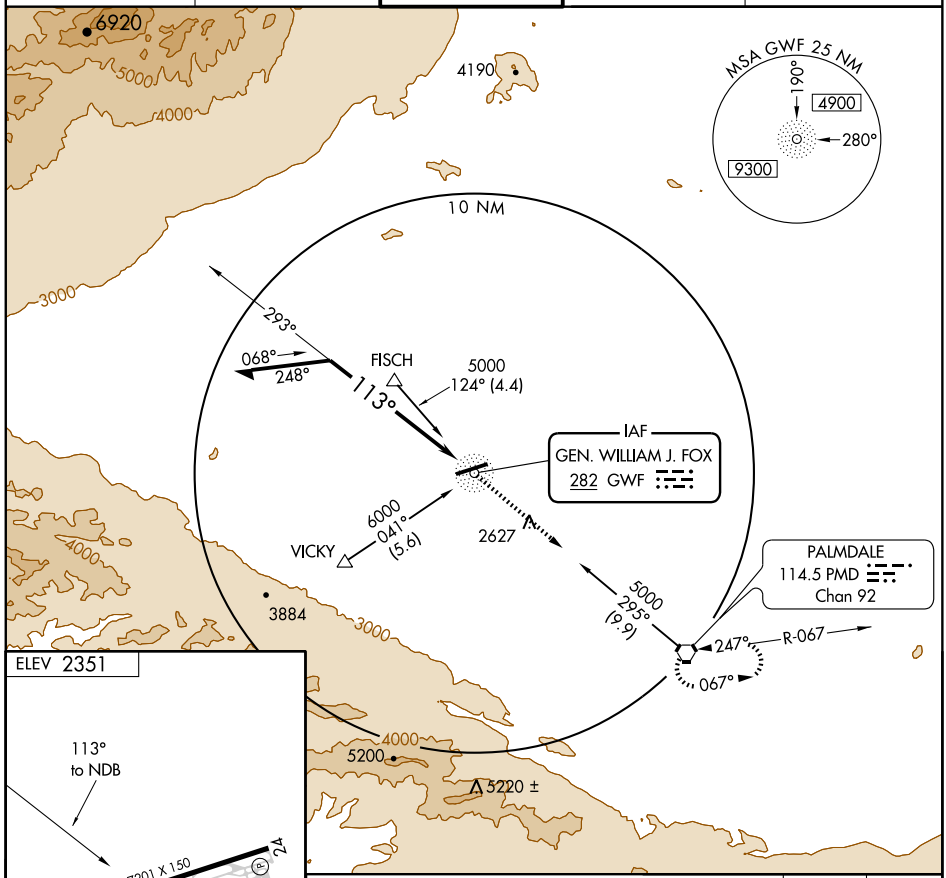
NDB-C

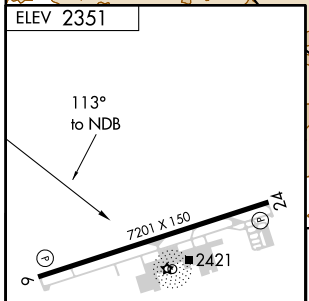
LANCASTER/GENERAL WILLIAM J. FOX AIRFIELD (WJF)

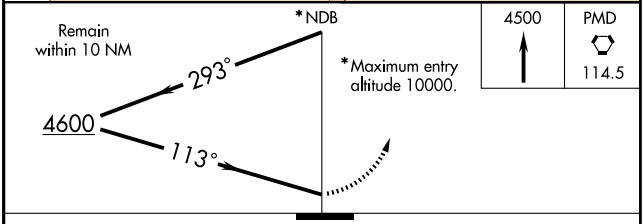
NA

MISSED APPROACH: Climb to 4500 direct PMD VORTAC and hold.

ATIS	JOSHUA APP CON	FOX TOWER ★	GND CON	UNICOM
126.3	126.1 290.3	120.3 (CTAF) 256.9	121.7 256.9	122.95







REIL Rwys 6 and 24
MIRL Rwy 6-24

CATEGORY	A	B	C	D
CIRCLING	3100-1 749 (800-1)	3100-1¼ 749 (800-1¼)	3100-2¼ 749 (800-2¼)	3100-2½ 749 (800-2½)

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS CH 93702 W06A	APP CRS 057°	Rwy Idg 7201 TDZE 2351 Apt Elev 2351

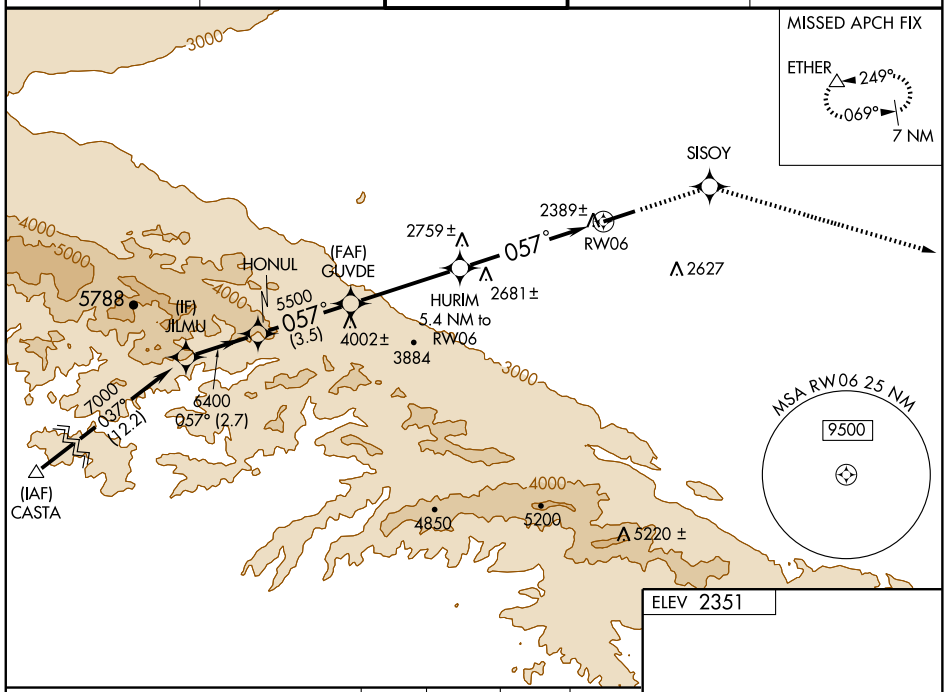
RNAV (GPS) RWY 6

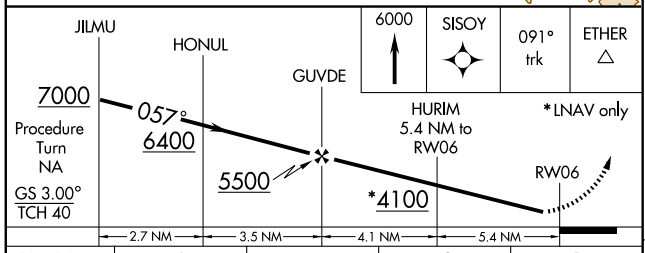
LANCASTER/ GENERAL WILLIAM J. FOX AIRFIELD (WJF)

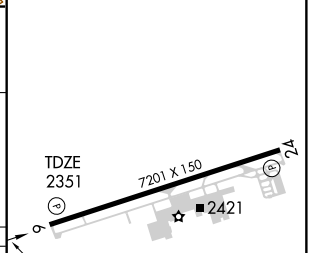
When VGSI inoperative, straight-in/circling Rwy 6 procedure NA at night.
DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 45°C (113°F).
If local altimeter setting not received, use Palmdale altimeter setting and increase all DA/MDAs 60 feet.
Baro-VNAV NA when using Palmdale altimeter setting.

MISSED APPROACH: Climb to 6000 direct SISOY and via 091° track to ETHER and hold.

ATIS	JOSHUA APP CON	FOX TOWER ★	GND CON	UNICOM
126.3	126.1 290.3	120.3 (CTAF) 256.9	121.7 256.9	122.95







CATEGORY	A	B	C	D
LPV DA	2601-1	250 (300-1)		
LNAV/ VNAV DA	2649-1	298 (300-1)		
LNAV MDA	2940-1	589 (600-1)	2940-1½ 589 (600-1½)	2940-1¾ 589 (600-1¾)
CIRCLING	2940-1	589 (600-1)	2940-1½ 589 (600-1½)	2940-2 589 (600-2)

REIL Rwys 6 and 24
MIRL Rwy 6-24

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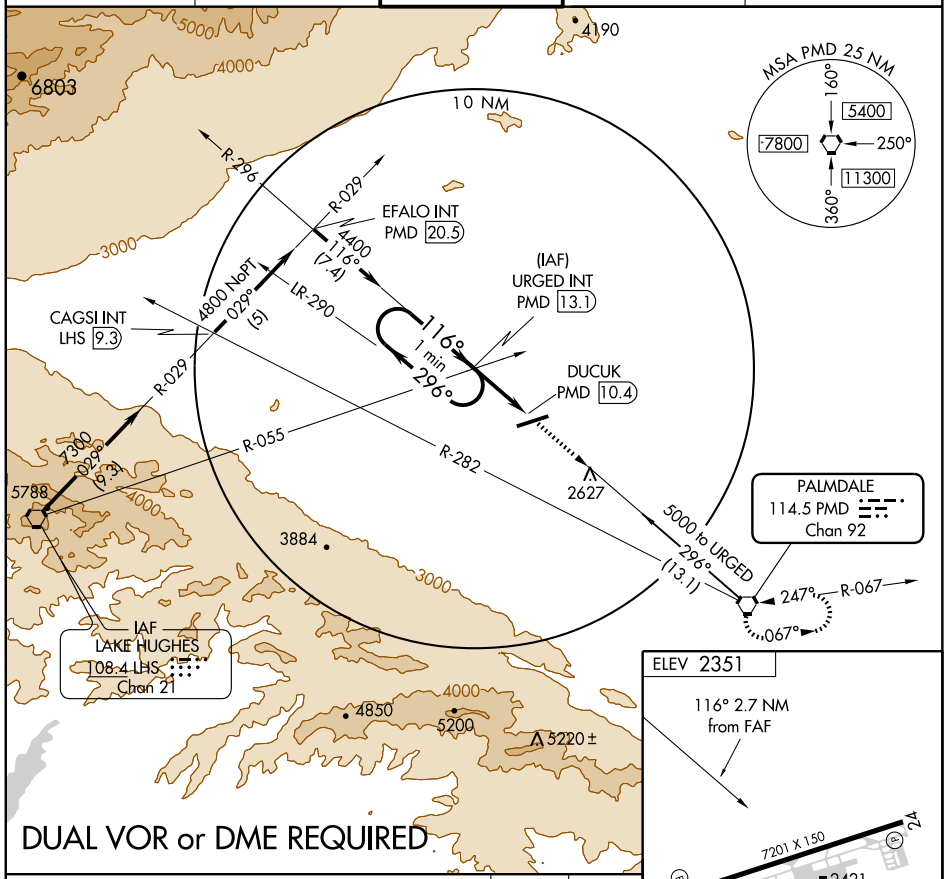
VORTAC PMD 114.5 Chan 92	APP CRS 116°	Rwy Idg N/A TDZE N/A Apt Elev 2351

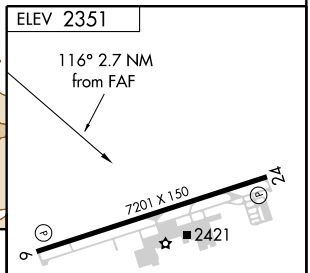
VOR-B

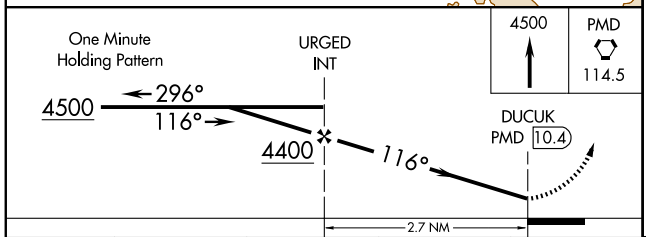
LANCASTER/GENERAL WILLIAM J. FOX AIRFIELD (WJF)

MISSED APPROACH: Climb to 4500 direct PMD VORTAC and hold.

ATIS 126.3	JOSHUA APP CON 126.1 290.3	FOX TOWER * 120.3 (CTAF) 256.9	GND CON 121.7 256.9	UNICOM 122.95







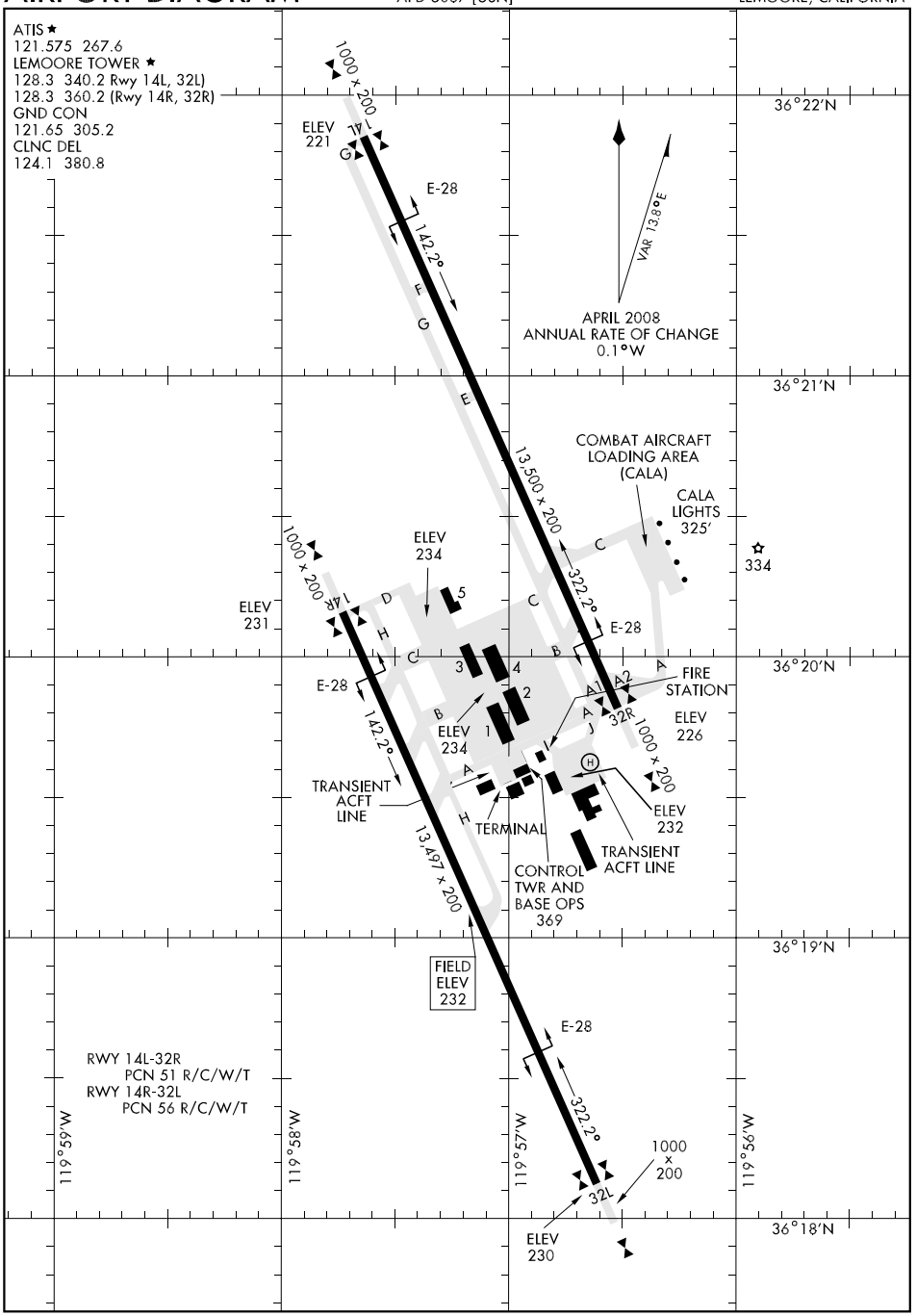
REIL Rwys 6 and 24
MIRL Rwy 6-24

CATEGORY	A	B	C	D
CIRCLING	3320-1¼ 969 (1000-1¼)	3320-1½ 969 (1000-1½)	3320-3 969 (1000-3)	

FAF to MAP 2.7 NM

Knots	60	90	120	150	180
Min:Sec	2:42	1:48	1:21	1:05	0:54

SW-3, 14 JAN 2010 to 11 FEB 2010

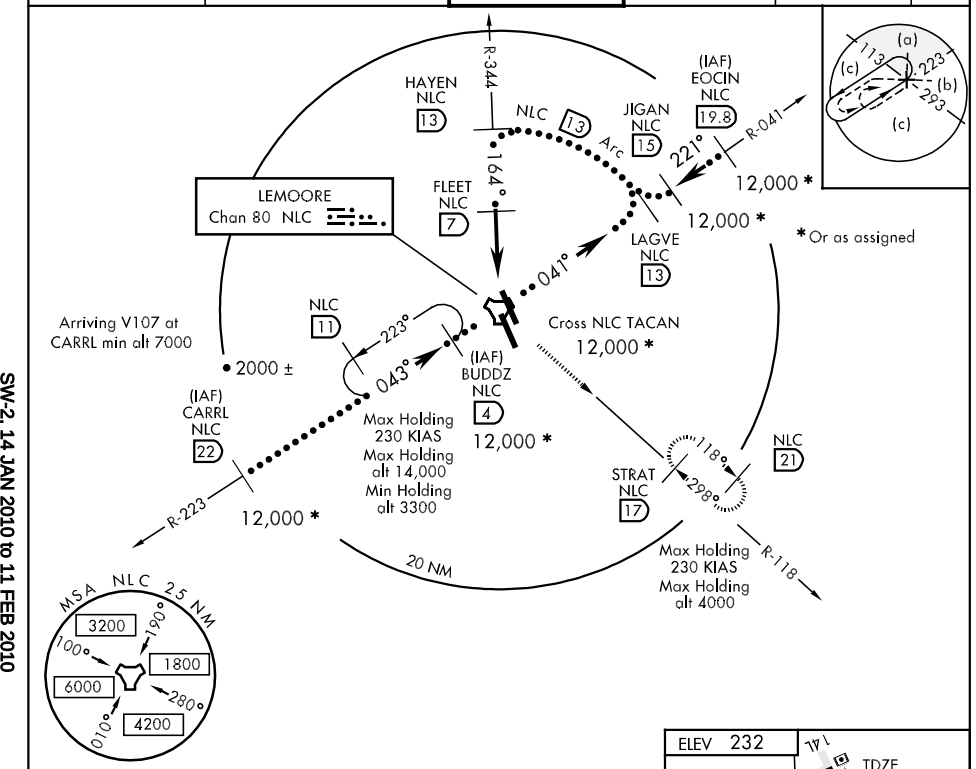

ATIS ★
121.575 267.6
LEMOORE TOWER ★
128.3 340.2 Rwy 14L, 32L)
128.3 360.2 (Rwy 14R, 32R)
GND CON
121.65 305.2
CLNC DEL
124.1 380.8
1000 × 200
ELEV 221
E-28
142.2°
VAR 13.8°E
APRIL 2008
ANNUAL RATE OF CHANGE
0.1°W
36°22'N
36°21'N
COMBAT AIRCRAFT LOADING AREA (CALA)
CALA LIGHTS 325'
334
13,500 × 200
322.2°
ELEV 234
ELEV 231
1000 × 200
E-28
142.2°
FIRE STATION
ELEV 234
ELEV 226
32R
1000 × 200
TRANSIENT ACFT LINE
TERMINAL
ELEV 232
TRANSIENT ACFT LINE
CONTROL TWR AND BASE OPS 369
13,497 × 200
36°20'N
36°19'N
FIELD ELEV 232
E-28
322.2°
RWY 14L-32R
PCN 51 R/C/W/T
RWY 14R-32L
PCN 56 R/C/W/T
1000 × 200
32L
ELEV 230
36°18'N
119°59'W
119°58'W
119°57'W
119°56'W

HI-TACAN RWY 14L

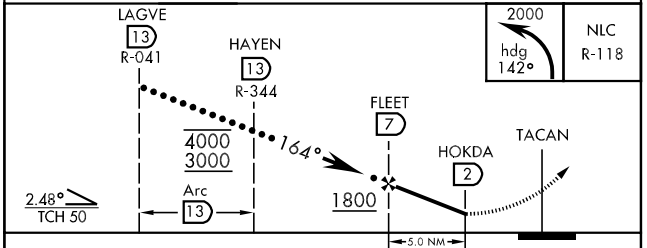
TACAN NLC Chan 80	APCH CRS 164°	Rwy ldg 13,500 TDZE 222 Arpt Elev 232	JAL-5067 [USN]	LEMOORE NAS (REEVES FIELD) (KNLC)

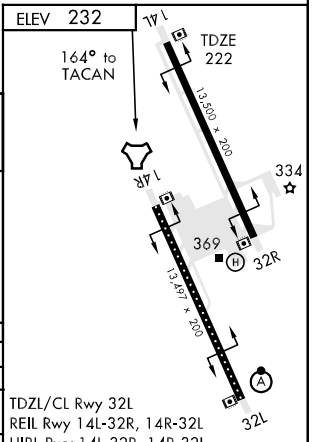
MISSED APPROACH: Climbing left turn to 2000 via heading 142°, intercept NLC R-118 to STRAT and hold.

ATIS ★	LEMOORE APP CON	LEMOORE TOWER ★	GND CON	CLNC DEL	ASR/ PAR
121.575 267.6	N 124.1 S 118.15 286.0	128.3 340.2	121.65 305.2	124.1 380.8	



EMERG SAFE ALT 100 NM 16,500





CATEGORY	C	D	E
S-14L	520-1	298	(300-1)
CIRCLING	700-1½ 468 (500-1½)	800-2 568	(600-2)
S-PAR 14L	322- ½	100	(100-½) GS 3.0°

TDZL/CL Rwy 32L
REIL Rwy 14L-32R, 14R-32L
HIRL Rwy 14L-32R, 14R-32L

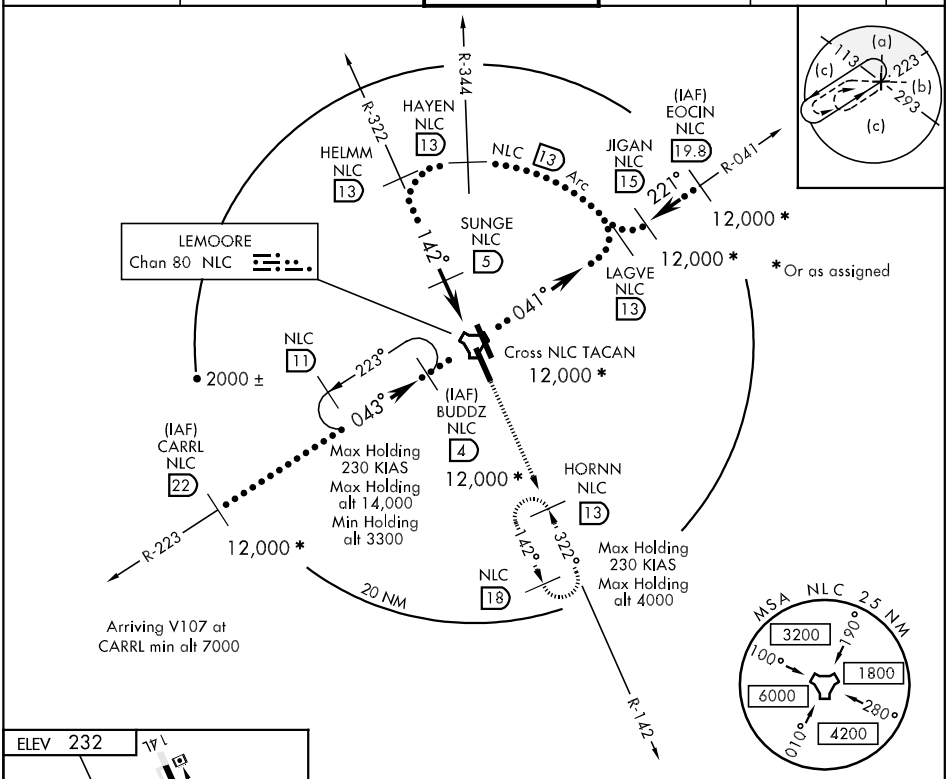
SW-2, 14 JAN 2010 to 11 FEB 2010

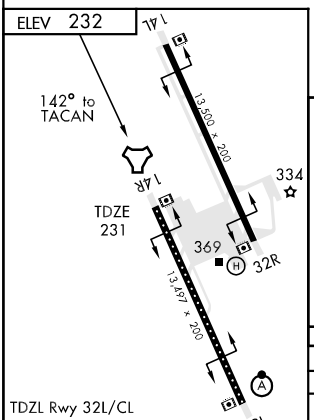
HI-TACAN RWY 14R

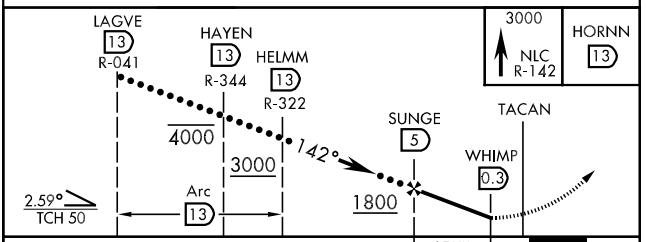
TACAN NLC Chan 80	APCH CRS 142°	Rwy ldg 13,497 TDZE 231 Arpt Elev 232	JAL-5067 [USN]	LEMOORE NAS (REEVES FIELD) (KNLC)

MISSED APPROACH: Climb to 3000 via R-142 to HORNN and hold.

ATIS ★	LEMOORE APP CON	LEMOORE TOWER ★	GND CON	CLNC DEL	ASR/PAR
121.575 267.6	N 124.1 S 118.15 286.0	128.3 360.2	121.65 305.2	124.1 380.8	







CATEGORY	C	D	E
S-14R	520-1	289	(300-1)
CIRCLING	700-1½ 468 (500-1½)	800-2	568 (600-2)
S-PAR 14R	331-½ 100	(100-½)	GS 3.0°

HI-TACAN Y RWY 32L

TACAN NLC Chan 80	APCH CRS 322°	Rwy ldg 13,497 TDZE 230 Arpt Elev 232

JAL-5067 [USN]

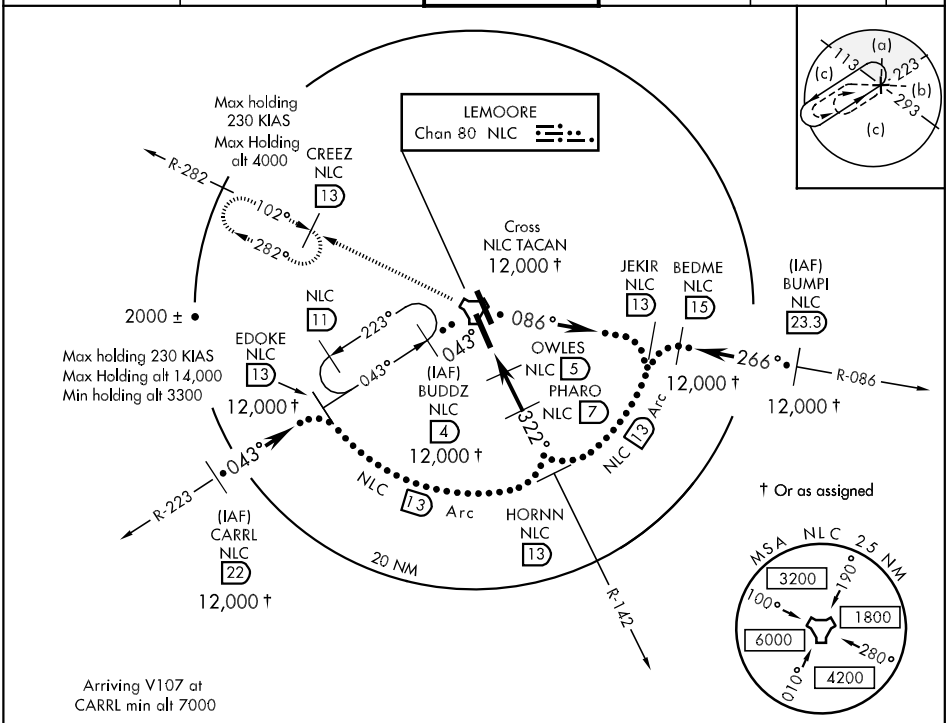
LEMOORE NAS (REEVES FIELD) (KNLC)

* When ALS inop, increase CAT CDE RVR to 50 and vis to 1 mile.
** When ALS inop, increase CAT CDE RVR to 24 and vis to ½ mile.

ALSF-2

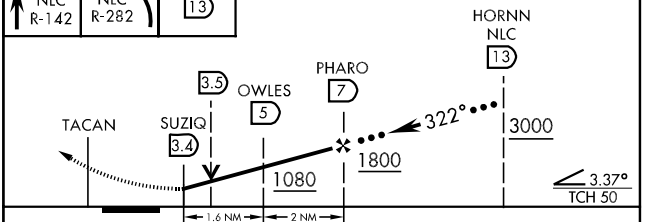
MISSED APPROACH: Climb to 3000 via R-142 to NLC TACAN, then via R-282 to CREEZ and hold.

ATIS ★	LEMOORE APP CON	LEMOORE TOWER ★	GND CON	CLNC DEL	ASR/PAR
121.575 267.6	N 124.1 S 118.15 286.0	128.3 340.2	121.65 305.2	124.1 380.8	

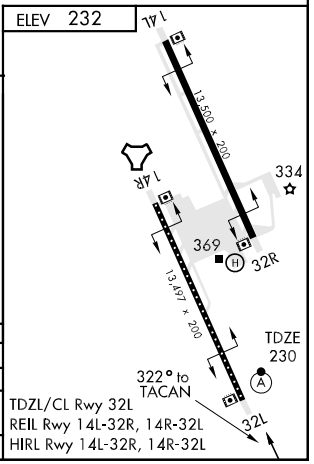


EMERG SAFE ALT 100 NM 16,500

3000 NLC R-142	NLC R-282	CREEZ 13



CATEGORY	C	D	E
S-32L *	540/40	310	(400-¾)
CIRCLING	700-1½ 468 (500-1½)	800-2	568 (600-2)
S-PAR 32L**	330/16	100	(100-¼) GS 3.0°



HI-TACAN Z RWY 32L

TACAN NLC Chan 80	APCH CRS 322°	Rwy ldg 13,497 TDZE 230 Arpt Elev 232

JAL-5067 [USN]

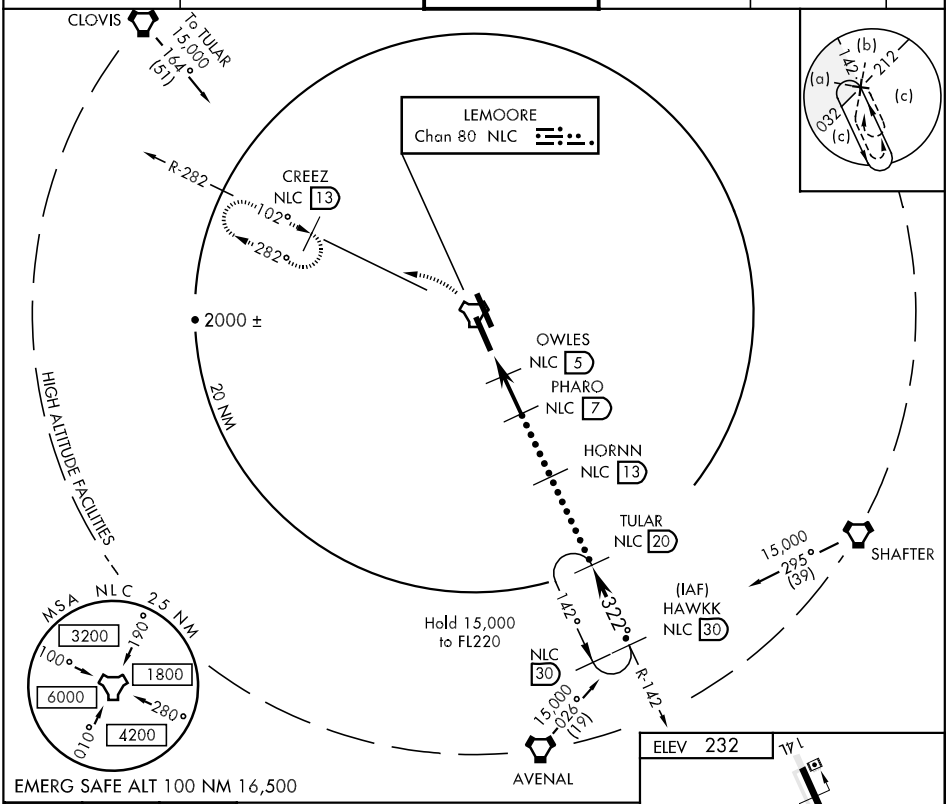
LEMOORE NAS (REEVES FIELD) (KNLC)

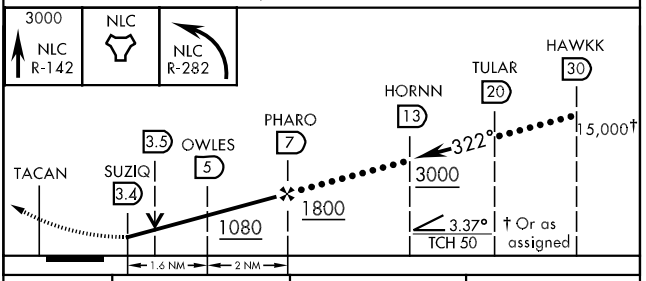
* When ALS inop, increase CAT CDE RVR to 50 and vis to 1 mile.
** When ALS inop, increase CAT CDE RVR to 24 and vis to ½ mile.

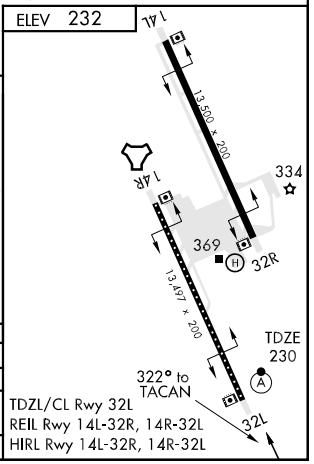
ALSF-2

MISSED APPROACH: Climb to 3000 via R-142 to NLC TACAN, then via R-282 to CREEZ and hold.

ATIS ★	LEMOORE APP CON	LEMOORE TOWER ★	GND CON	CLNC DEL	ASR/PAR
121.575 267.6	N 124.1 S 118.15 286.0	128.3 340.2	121.65 305.2	124.1 380.8	



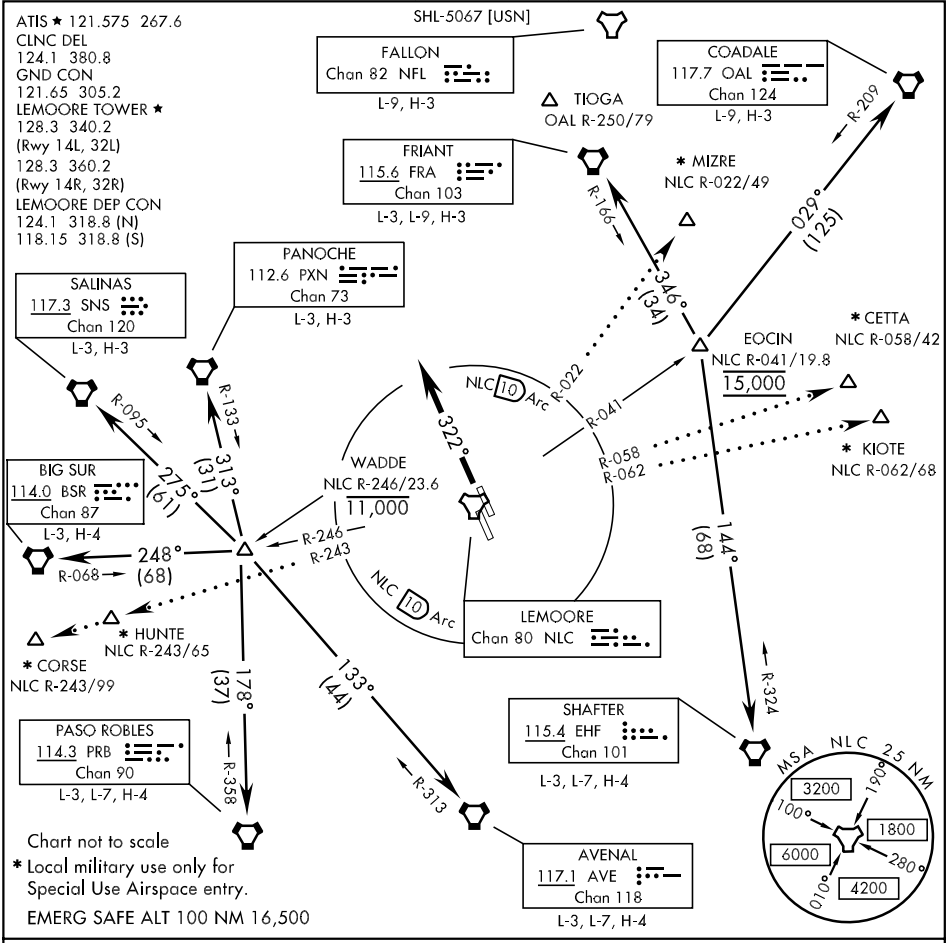




CATEGORY	C	D	E
S-32L *	540/40	310 (400-¾)	
CIRCLING	700-1½ 468 (500-1½)	800-2 568	(600-2)
S-PAR 32L**	330/16	100 (100-¼)	GS 3.0°

TDZL/CL Rwy 32L
REIL Rwy 14L-32R, 14R-32L
HIRL Rwy 14L-32R, 14R-32L

LEMOORE-SEVEN DEPARTURE (NLC7•NLC)



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 32L/32R: Climb to 2000 via heading 322°. Expect radar vectors to join assigned transition route.

AVENAL TRANSITION (NLC7.AVE): From over WADDE via AVE R-313 to AVENAL VORTAC. Thence as filed. Cross WADDE at or below 11,000.

BIG SUR TRANSITION (NLC7.BSR): From over WADDE climb on heading 248° to 11,000 or as assigned for vectors to intercept BSR R-068 to BIG SUR VORTAC. Thence as filed. Cross WADDE at or below 11,000.

COALDALE TRANSITION (NLC7.OAL): From over EOCIN climb on heading 029° to 15,000 or as assigned for radar vectors to intercept OAL R-209 to COALDALE VORTAC. Thence as filed. Cross EOCIN at 15,000.

(Continued on next page)

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SHL-5067 [USN]

DEPARTURE ROUTE DESCRIPTION
(Continued)

CORSE TRANSITION (NLC7.CORSE): From over WADDE fly heading 246° for vectors to intercept NLC R-243 to CORSE. Cross WADDE at or below 11,000.

FALLON TRANSITION (NLC7.NFL): From over EOCIN fly heading 041° for vectors to FALLON TACAN. Then as filed. Cross EOCIN at 15,000.

FRIANT TRANSITION (NLC7.FRA): From over EOCIN via FRA R-166 to FRIANT VORTAC. Thence as filed. Cross EOCIN at 15,000.

HUNTE TRANSITION (NLC7.HUNTE): From over WADDE fly heading 246° for vectors to intercept NLC R-243 to HUNTE. Cross WADDE at or below 11,000.

MIZRE TRANSITION (NLC7.MIZRE): from over EOCIN fly heading 041° for vectors to intercept NLC R-022 to MIZRE. Thence as filed. Cross EOCIN at 15,000.

PANOCHE TRANSITION (NLC7.PXN): From over WADDE via PXN R-133 to PANOCHE VORTAC. Thence as filed. Cross WADDE at or below 11,000.

PASO ROBLES TRANSITION (NLC7.PRB): From over WADDE via PRB R-358 to PASO ROBLES VORTAC. Thence as filed. Cross WADDE at or below 11,000.

SALINAS TRANSITION (NLC7.SNS): From over WADDE climb on heading 275° to 11,000 or as assigned for vectors to intercept SNS R-095 to SALINAS VORTAC. Thence as filed. Cross WADDE at or below 11,000.

SHAFTER TRANSITION (NLC7.EHF): From over EOCIN via EHF R-324 to SHAFTER VORTAC. Thence as filed. Cross EOCIN at 15,000.

TIOGA TRANSITION (NLC7.TIOGA): From over EOCIN fly heading 041° for vectors to TIOGA. Thence as filed. Cross EOCIN at 15,000.

LOST COMMUNICATIONS: If no transmissions are received within 8 DME of NLC TACAN, climb to 4000, fly departure heading to intercept NLC TACAN 10 mile arc, arc to respective departure radial then via departure radial to assigned departure fix . Then via assigned transition or route. Once established on departure radial climb to filed altitude.

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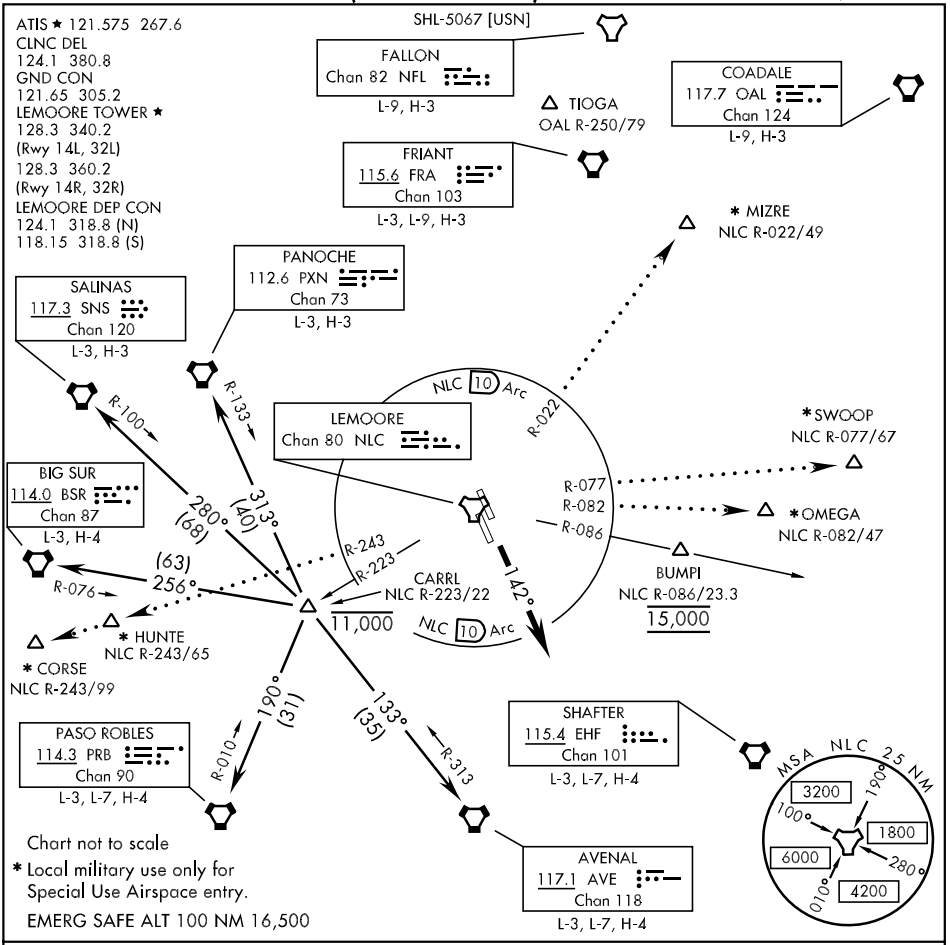
REEVES-ONE DEPARTURE (REVES1• NLC)



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 14L/14R: Climb to 2000 via heading 142°. Expect radar vectors to join assigned transition route.

AVENAL TRANSITION (REVES1.AVE): From over CARRL via AVE R-313 to AVENAL VORTAC. Thence as filed. Cross CARRL at or below 11,000.

BIG SUR TRANSITION (REVES1.BSR): From over CARRL climb on heading 256° to 11,000 or as assigned for vectors to intercept BSR R-076 to BIG SUR VORTAC. Thence as filed. Cross CARRL at or below 11,000.

(Continued on next page)

SW-2, 14 JAN 2010 to 11 FEB 2010

SHL-5067 [USN]

DEPARTURE ROUTE DESCRIPTION
(Continued)

CORSE TRANSITION (REVES1.CORSE): From over CARRL fly heading 270° for vectors to intercept NLC R-243 to CORSE. Cross CARRL at or below 11,000.

HUNTE TRANSITION (REVES1.HUNTE): From over CARRL fly heading 270° for vectors to intercept NLC R-243 to HUNTE. Cross CARRL at or below 11,000.

PANOCHE TRANSITION (REVES1.PXN): From over CARRL via PXN R-133 to PANOCHE VORTAC. Thence as filed. Cross CARRL at or below 11,000.

PASO ROBLES TRANSITION (REVES1.PRB): From over CARRL via PRB R-010 to PASO ROBLES VORTAC. Thence as filed. Cross CARRL at or below 11,000.

SALINAS TRANSITION (REVES1.SNS): From over CARRL climb on heading 280° to 11,000 or as assigned for vectors to intercept SNS R-100 to SALINAS VORTAC. Thence as filed. Cross CARRL at or below 11,000.

LOST COMMUNICATIONS: If no transmissions are received within 8 DME of NLC TACAN, climb to 4000, fly departure heading to intercept NLC TACAN 10 mile arc, thence...

West bound Departures: Arc west of NLC TACAN via 10 mile arc to NLC R-223 to CARRL, then via assigned transition or route. Once established on departure radial climb to filed altitude. Cross CARRL at or below 11,000.

East bound Departures: Arc east of NLC TACAN via 10 mile arc to NLC R-086, then via NLC R-086 to BUMPI, then via assigned route. Once established on NLC R-086 climb to filed altitude. Cross BUMPI at 15,000.

SW-2, 14 JAN 2010 to 11 FEB 2010

RNAV (GPS) RWY 14L

APCH CRS	Rwy ldg	13,500
142°	TDZE	222
	Arpt Elev	232

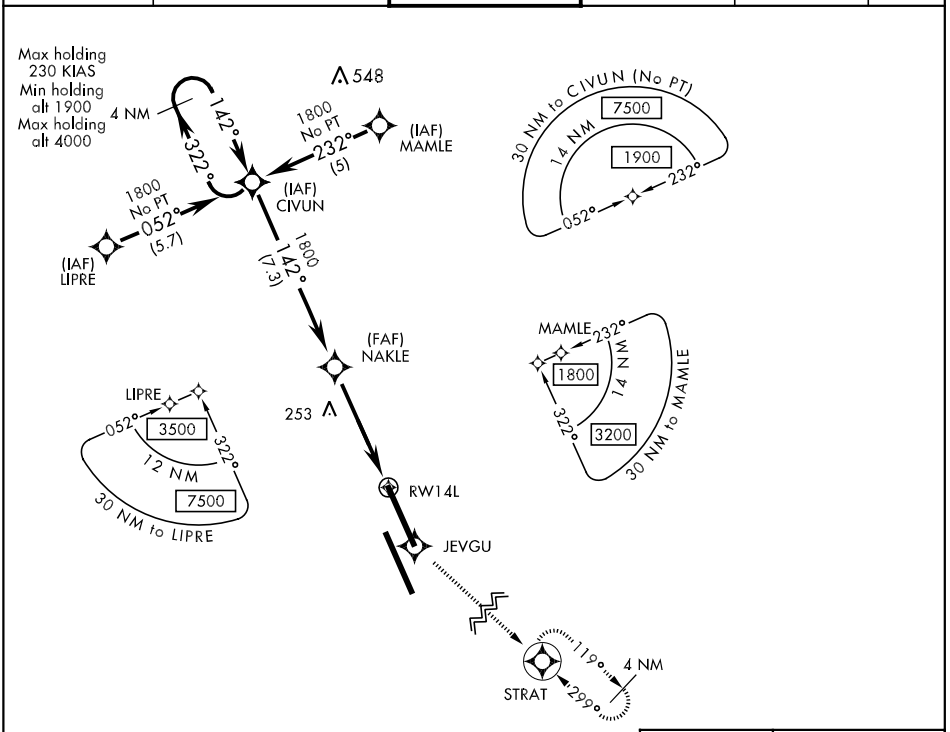
AL-5067 [USN]

LEMOORE NAS (REEVES FLD) (KNLC)

Baro VNAV NA below - 15.46°C (4.17°F).
DME/DME RNP-0.3 NA

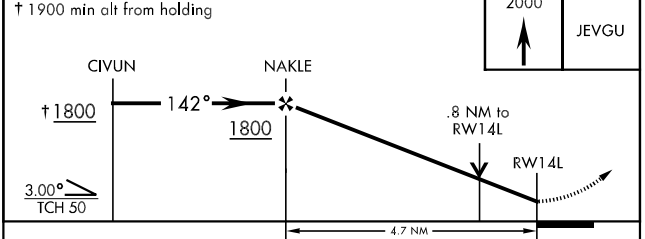
MISSED APPROACH: Climb to 2000 direct JEVGU, then via track 119° to STRAT and hold.

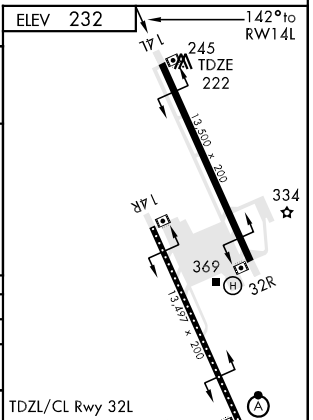
ATIS ★	LEMOORE APP CON	LEMOORE TOWER ★	GND CON	CLNC DEL	ASR/PAR
121.575 267.6	N 124.1 S 118.15 286.0	128.3 340.2	121.65 305.2	124.1 380.8	



EMERG SAFE ALT 100 NM 16,500

† 1900 min alt from holding





CATEGORY	A	B	C	D
LNAV MDA	520-1	298	(300-1)	
LNAV/ VNAV DA	520-1	298	(300-1)	
CIRCLING	680-1 448 (500-1)	700-1 468 (500-1)	700-1½ 468 (500-1½)	800-2 568 (600-2)
S-PAR 14L	322-½	100	(100-½)	GS 3.0°

RNAV (GPS) RWY 14R

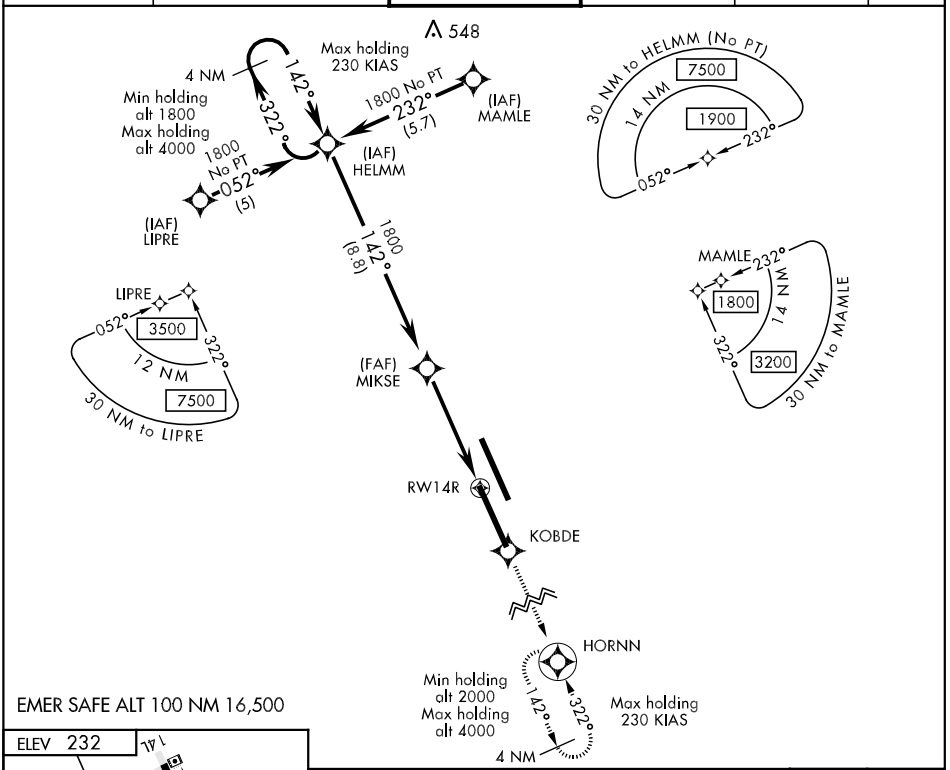
APCH CRS	Rwy ldg	13,497
142°	TDZE	231
	Arpt Elev	232

AL-5067 [USN] LEMOORE NAS (REEVES FLD) (KNLC)

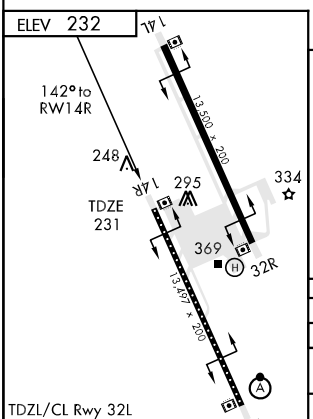
Baro VNAV NA below - 15.46°C (4.17°F).
DME/DME RNP-0.3 NA

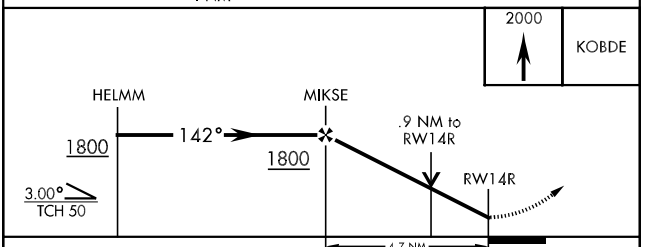
MISSED APPROACH: Climb to 2000 direct KOBDE, then via track 142°to HORNN and hold.

ATIS ★	LEMOORE APP CON	LEMOORE TOWER ★	GND CON	CLNC DEL	ASR/PAR
121.575 267.6	N 124.1 S 118.15 286.0	128.3 360.2	121.65 305.2	124.1 380.8	



EMER SAFE ALT 100 NM 16,500





CATEGORY	A	B	C	D
LNAV MDA	560-1 (400-1)		330	
LNAV/VNAV DA	500-1 (300-1)		270	
CIRCLING	680-1 448 (500-1)	700-1 468 (500-1)	700-1½ 468 (500-1½)	800-2 568 (600-2)

S-PAR 14R 331-½ 100 (100-½) GS 3.00°

SW-2, 14 JAN 2010 to 11 FEB 2010

RNAV (GPS) RWY 32L

APCH CRS	Rwy ldg	TDZE	Arpt Elev
322°	13,497	230	232

AL-5067 [USN]

LEMOORE NAS (REEVES FLD) (KNLC)

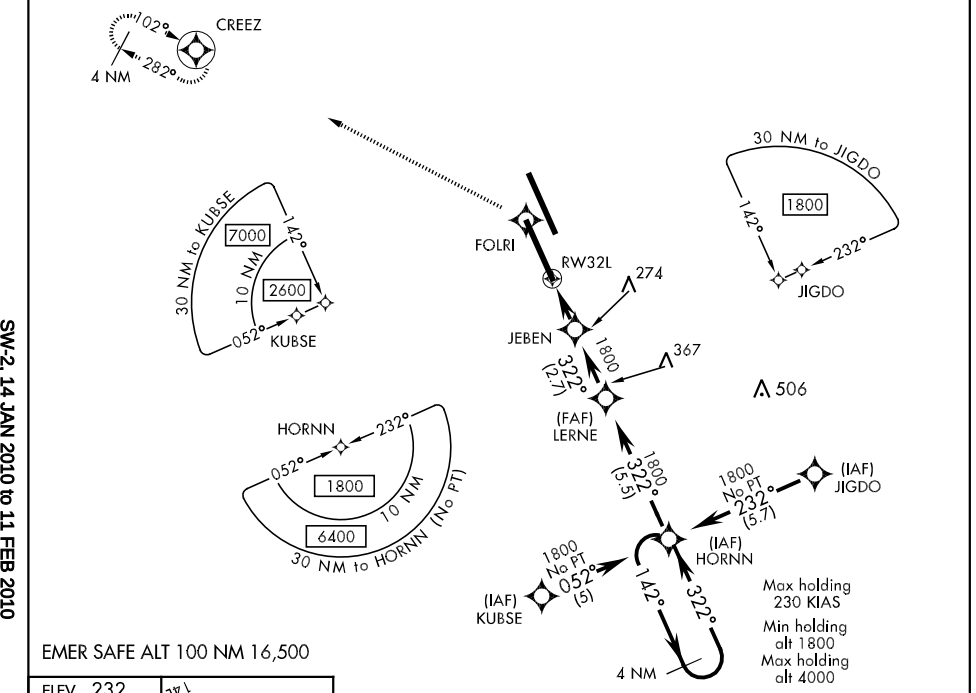
▼ * When ALS inop, increase CAT ABCD RVR to 50 and vis to 1 mile.
** When ALS inop, increase CAT ABCD RVR to 24 and vis to ½ mile.

ALSF-2

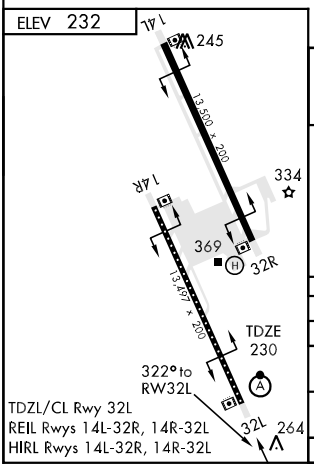
MISSED APPROACH: Climb to 3200 direct FOLRI, then via track 281° to CREEZ and hold.

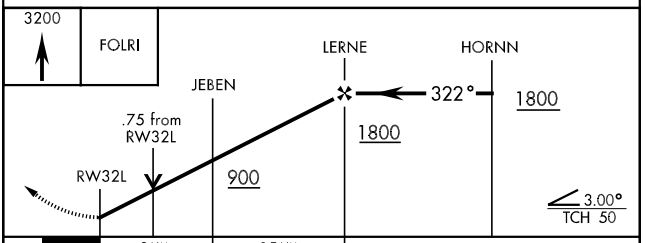
ATIS ★	LEMOORE APP CON	LEMOORE TOWER ★	GND CON	CLNC DEL	ASR/PAR
121.575 267.6	N 124.1 S 118.15 286.0	128.3 340.2	121.65 305.2	124.1 380.8	

Baro VNAV NA below - 15.46°C (4.17°F).
DME/DME RNP-0.3 NA



EMER SAFE ALT 100 NM 16,500





CATEGORY	A	B	C	D
LNAV MDA *	520/24 290	(300-½)	520/40 290	(300-¾)
LNAV/ VNAV DA *	520/24 290	(300-½)	520/40 290	(300-¾)
CIRCLING	680-1 448 (500-1)	700-1 468 (500-1)	700-1½ 468 (500-1½)	800-2 568 (600-2)
S-PAR 32L**	330/16 100 (100-¼) GS 3.00°			

SW-2, 14 JAN 2010 to 11 FEB 2010

RNAV (GPS) RWY 32R

APCH CRS	Rwy ldg	13,500
322°	TDZE	225
	Arpt Elev	232

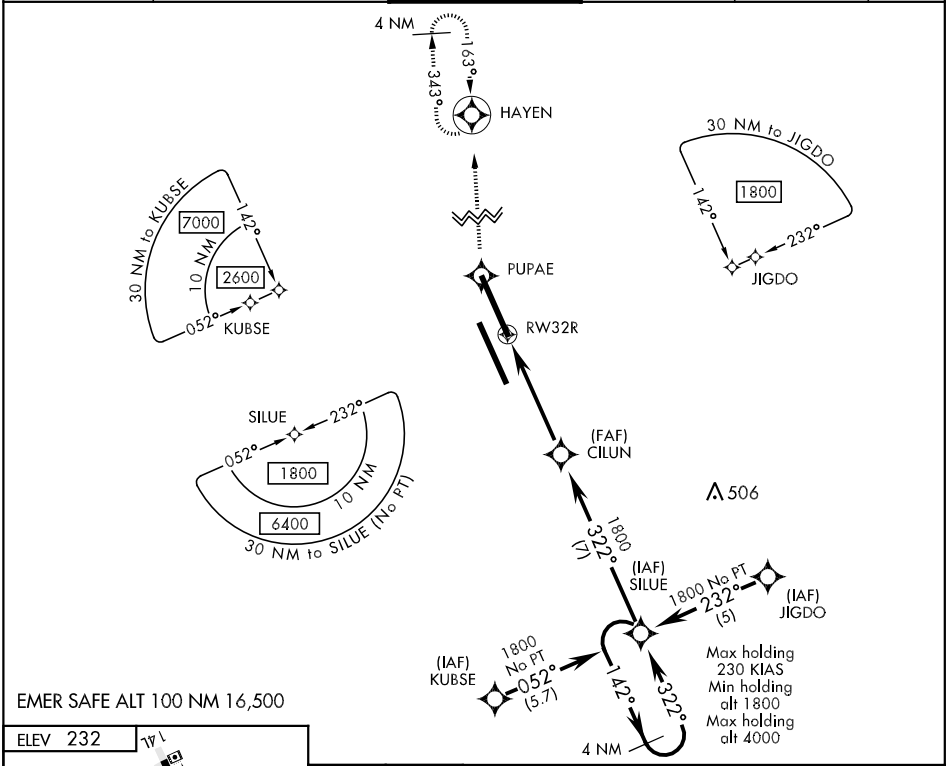
AL-5067 [USN] LEMOORE NAS (REEVES FLD) (KNLC)

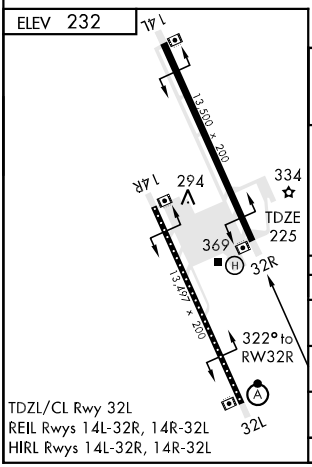
DME/DME RNP-0.3 NA

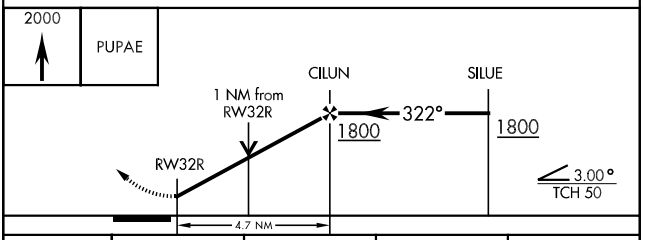
Baro VNAV NA below - 15.46°C (4.17°F)

MISSED APPROACH: Climb to 2000 direct PUPAE, then via track 343° to HAYEN and hold.

ATIS ★	LEMOORE APP CON	LEMOORE TOWER ★	GND CON	CLNC DEL	ASR/PAR
121.575 267.6	N 124.1 S 118.15 286.0	128.3 360.2	121.65 305.2	124.1 380.8	







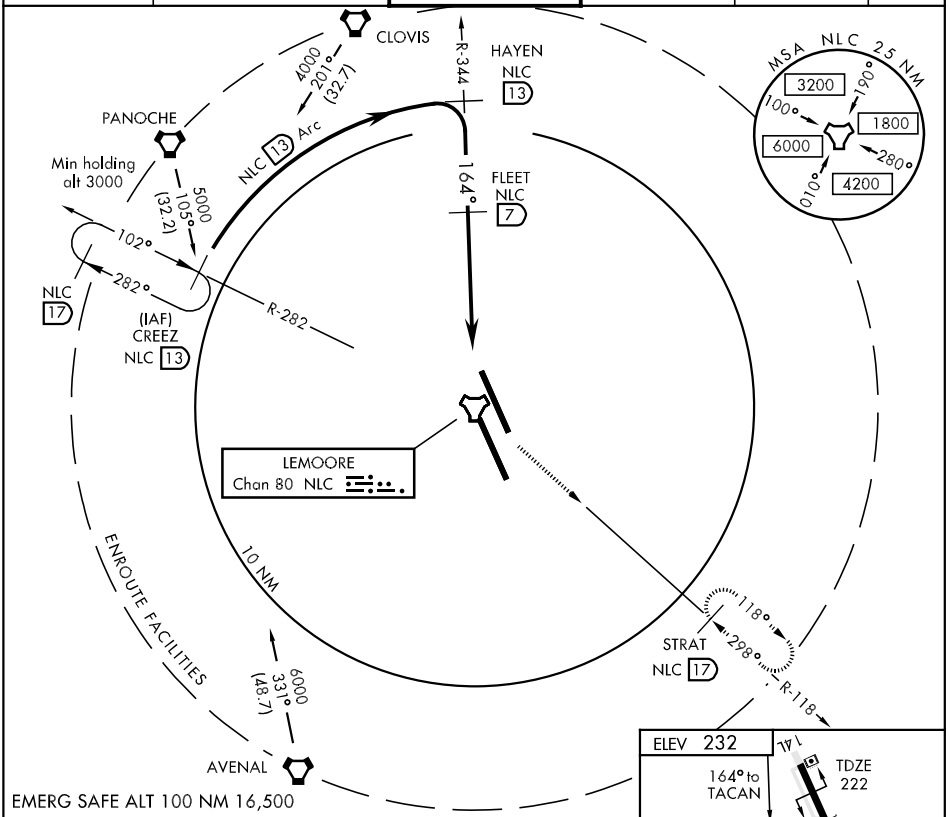
CATEGORY	A	B	C	D
LNAV MDA	620/50	395	(400-1)	620/60 395 (400-1¼)
LNAV/ VNAV DA	620/60	395	(400-1¼)	620-1½ 395 (400-1½)
CIRCLING	680-1¼ 448 (500-1¼)	700-1¼ 468 (500-1¼)	700-1½ 468 (500-1½)	800-2 568 (600-2)
S-PAR 32R	325/24	100	(100-½)	GS 3.00°

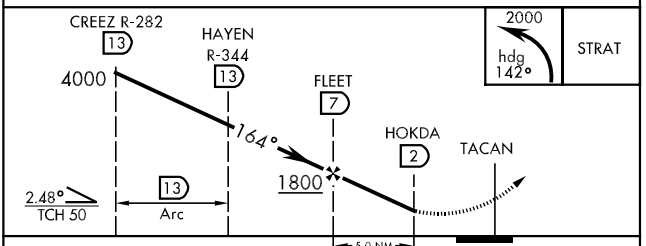
TACAN RWY 14L

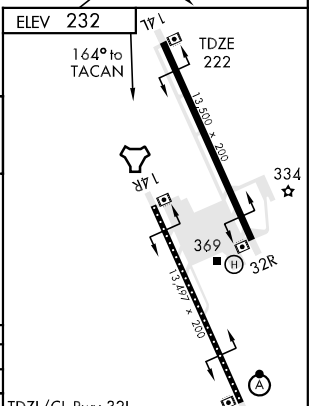
TACAN NLC Chan 80	APCH CRS 164°	Rwy ldg 13,500 TDZE 222 Arpt Elev 232	AL-5067 [USN]	LEMOORE NAS (REEVES FIELD) (KNLC)

MISSED APPROACH: Climbing left turn to 2000 via heading 142°, intercept R-118 to STRAT and hold.

ATIS ★	LEMOORE APP CON	LEMOORE TOWER ★	GND CON	CLNC DEL	ASR/PAR
121.575 267.6	N 124.1 S 118.15 286.0	128.3 340.2	121.65 305.2	124.1 380.8	







CATEGORY	A	B	C	D
S-14L	520-1		298 (300-1)	
CIRCLING	680-1 448 (500-1)	700-1 468 (500-1)	700-1½ 468 (500-1½)	800-2 568 (600-2)
S-PAR 14L	322-½	100	(100-½)	GS 3.0°

TDZL/CL Rwy 32L
REIL Rwys 14L-32R, 14R-32L
HIRL Rwys 14L-32R, 14R-32L

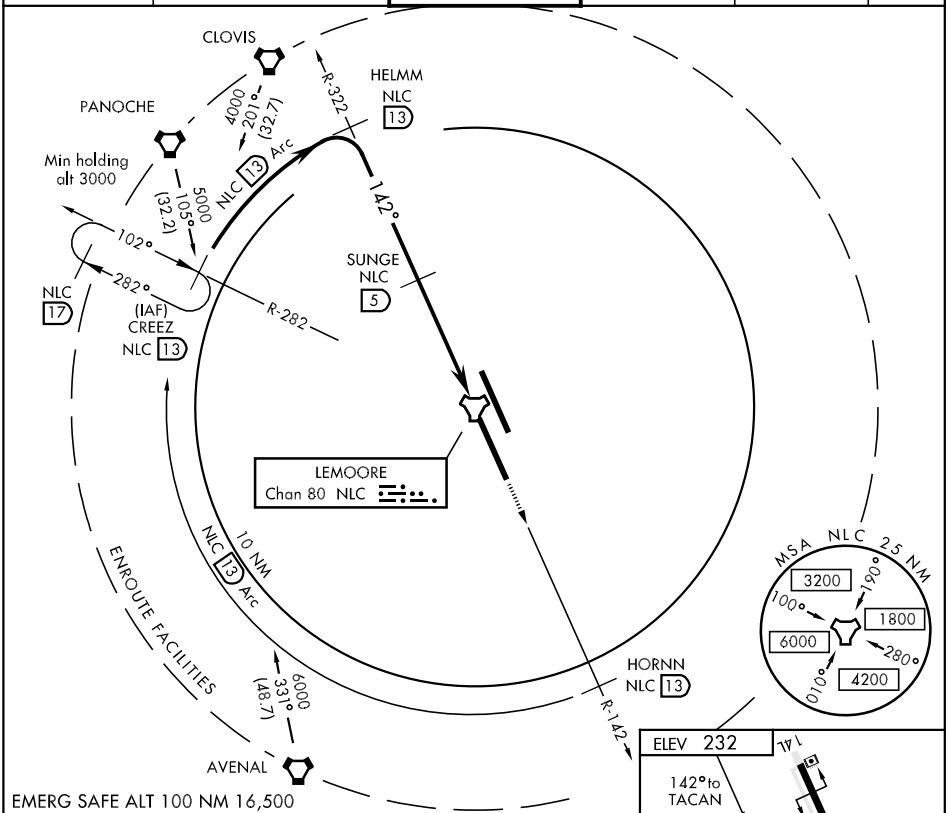
SW-2, 14 JAN 2010 to 11 FEB 2010

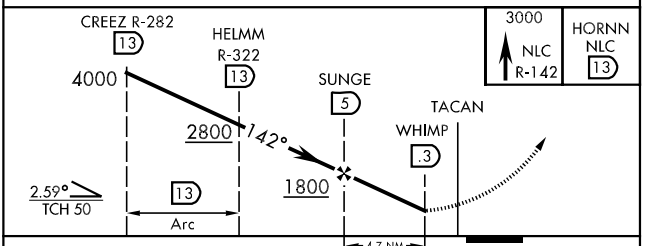
TACAN RWY 14R

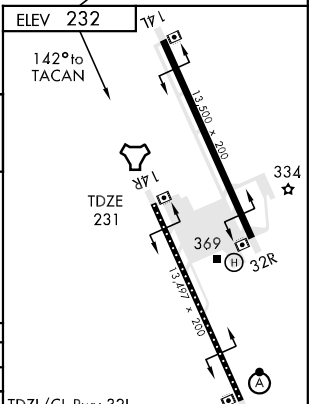
TACAN NLC Chan 80	APCH CRS 142°	Rwy ldg 13,497 TDZE 231 Arpt Elev 232	AL-5067 [USN]	LEMOORE NAS (REEVES FIELD) (KNLC)

MISSED APPROACH: Climb to 3000 via R-142 to HORNN, then arc SW of NLC TACAN via the 13 DME Arc to CREEZ and hold.

ATIS ★	LEMOORE APP CON	LEMOORE TOWER ★	GND CON	CLNC DEL	ASR/PAR
121.575 267.6	N 124.1 S 118.15 286.0	128.3 360.2	121.65 305.2	124.1 380.8	







CATEGORY	A	B	C	D
S-14R	520-1	289	(300-1)	
CIRCLING	680-1 448 (500-1)	700-1 468 (500-1)	700-1½ 468 (500-1½)	800-2 568 (600-2)
S-PAR 14R	331-½	100	(100-½)	GS 3.0°

TDZL/CL Rwy 32L
REIL Rwys 14L-32R, 14R-32L
HIRL Rwys 14L-32R, 14R-32L

SW-2, 14 JAN 2010 to 11 FEB 2010

TACAN RWY 32L

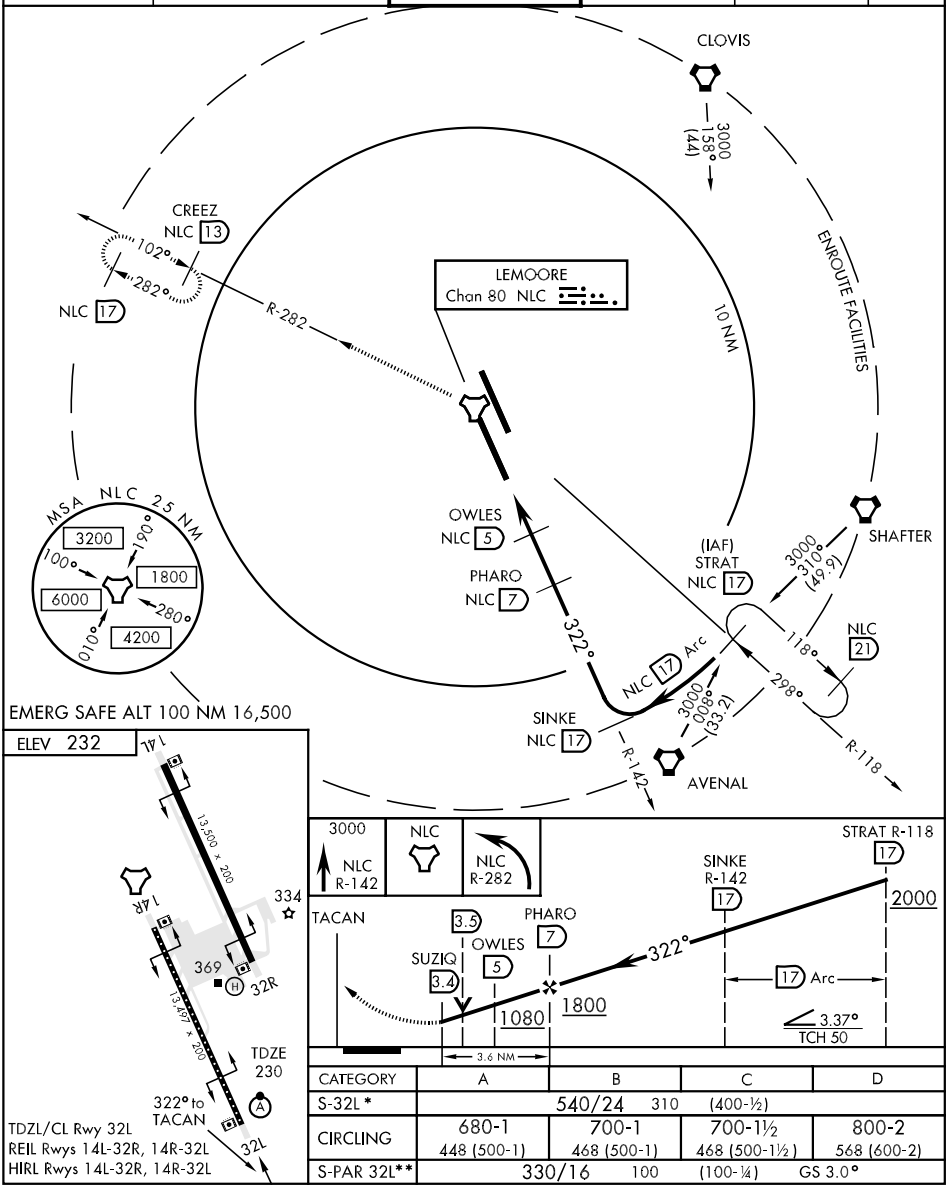
TACAN	APCH CRS	Rwy ldg / TDZE / Arpt Elev	AL-5067 [USN]	LEMOORE NAS (REEVES FIELD) (KNLC)
NLC Chan 80	322°	13,497 / 230 / 232		

* When ALS inop, increase CAT ABCD RVR to 50 and vis to 1 mile.
** When ALS inop, increase CAT ABCD RVR to 24 and vis to ½ mile.

ALSF-2

MISSED APPROACH: Climb to 3000 via R-142 to NLC TACAN, then via R-282 to CREEZ and hold.

ATIS ★	LEMOORE APP CON	LEMOORE TOWER ★	GND CON	CLNC DEL	ASR/PAR
121.575 267.6	N 124.1 S 118.15 286.0	128.3 340.2	121.65 305.2	124.1 380.8	



TDZL/CL Rwy 32L
REIL Rwys 14L-32R, 14R-32L
HIRL Rwys 14L-32R, 14R-32L

CATEGORY	A	B	C	D
S-32L *	540/24 310 (400-½)			
CIRCLING	680-1 448 (500-1)	700-1 468 (500-1)	700-1½ 468 (500-1½)	800-2 568 (600-2)
S-PAR 32L**	330/16 100 (100-¼) GS 3.0°			

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	6001
148°	TDZE	121
	Apt Elev	121

GPS RWY 15

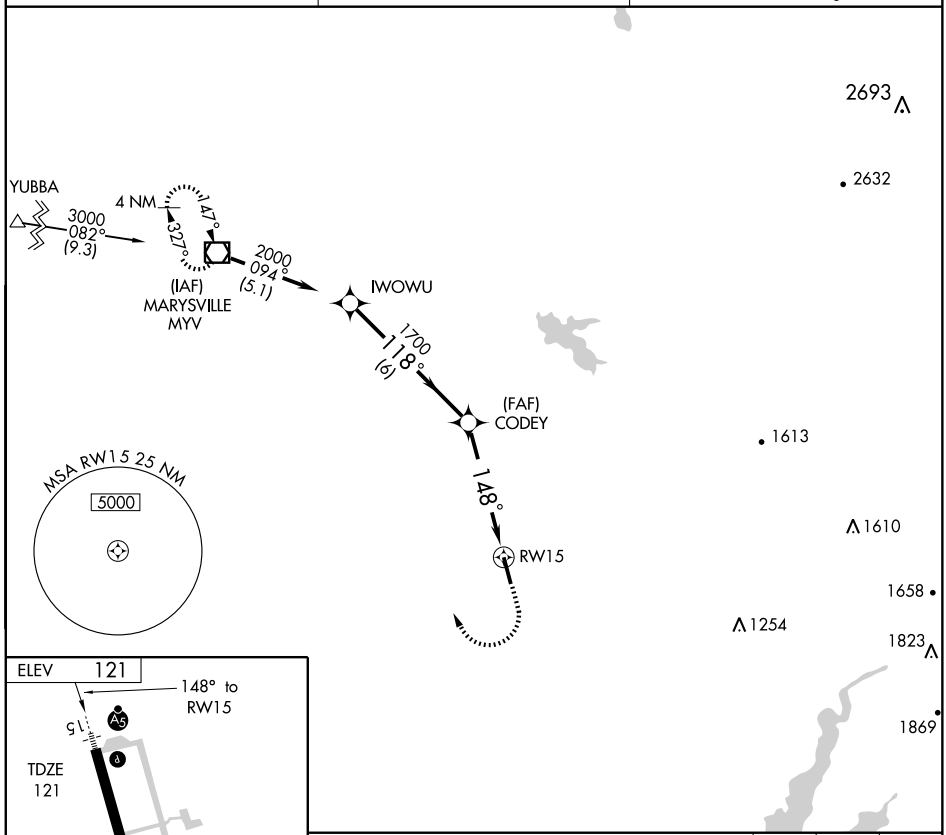
LINCOLN RGNL/KARL HARDER FIELD (LHM)

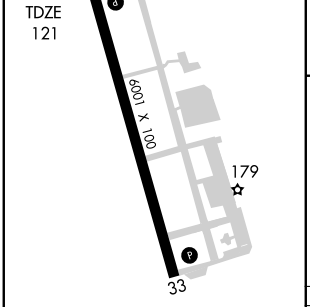
V NA — For inoperative MALSR increase S-15 A-C visibilities to 1, Category D to 1¼ .

MALSR

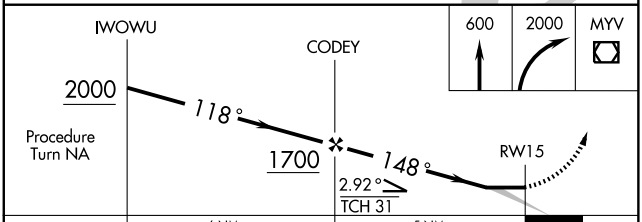
MISSED APPROACH: Climb to 600 then climbing right turn to 2000, direct MYV VOR/DME and hold.

AWOS-3	NORCAL APP CON	UNICOM
124.25	125.4 259.1	123.0 (CTAF) L





MIRL Rwy 15-33 L



CATEGORY	A	B	C	D
S-15	480- ¾ 359 (400-¾)			480-1 359 (400-1)
CIRCLING	500-1 379 (400-1)	580-1 459 (500-1)	580-1½ 459 (500-1½)	680-2 559 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	6001
328°	TDZE	121
	Apt Elev	121

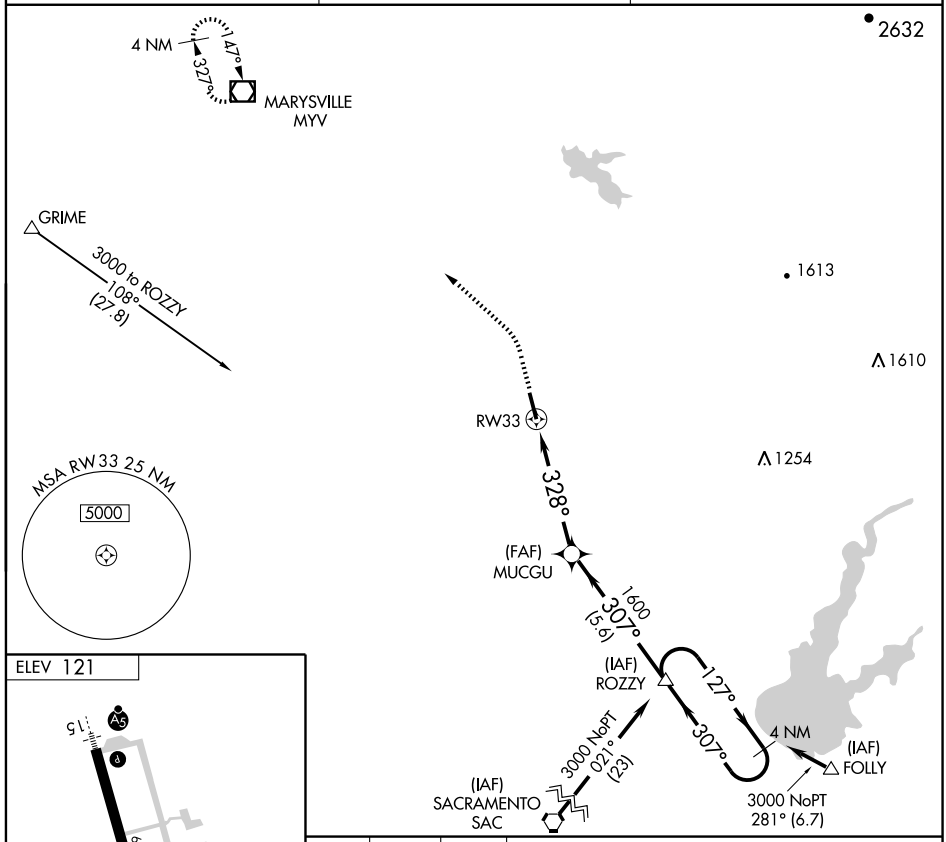
GPS RWY 33

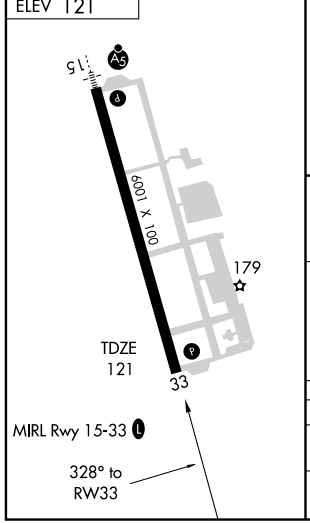
LINCOLN RGNL/ KARL HARDER FIELD (LHM)

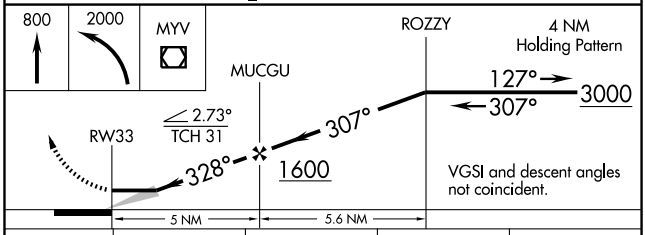
NA

MISSED APPROACH: Climb to 800 then climbing left turn to 2000 direct to MYV VOR/DME and hold.

AWOS-3	NORCAL APP CON	UNICOM
124.25	125.4 259.1	123.0 (CTAF) L







CATEGORY	A	B	C	D
S-33	720-1	599 (600-1)	720-1½ 599 (600-1½)	720-1¾ 599 (600-1¾)
CIRCLING	720-1	599 (600-1)	720-1½ 599 (600-1½)	720-2 599 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-LHM	APP CRS	Rwy Idg	6001
108.75	149°	TDZE	119
Chan 24 (Y)		Apt Elev	121

ILS RWY 15

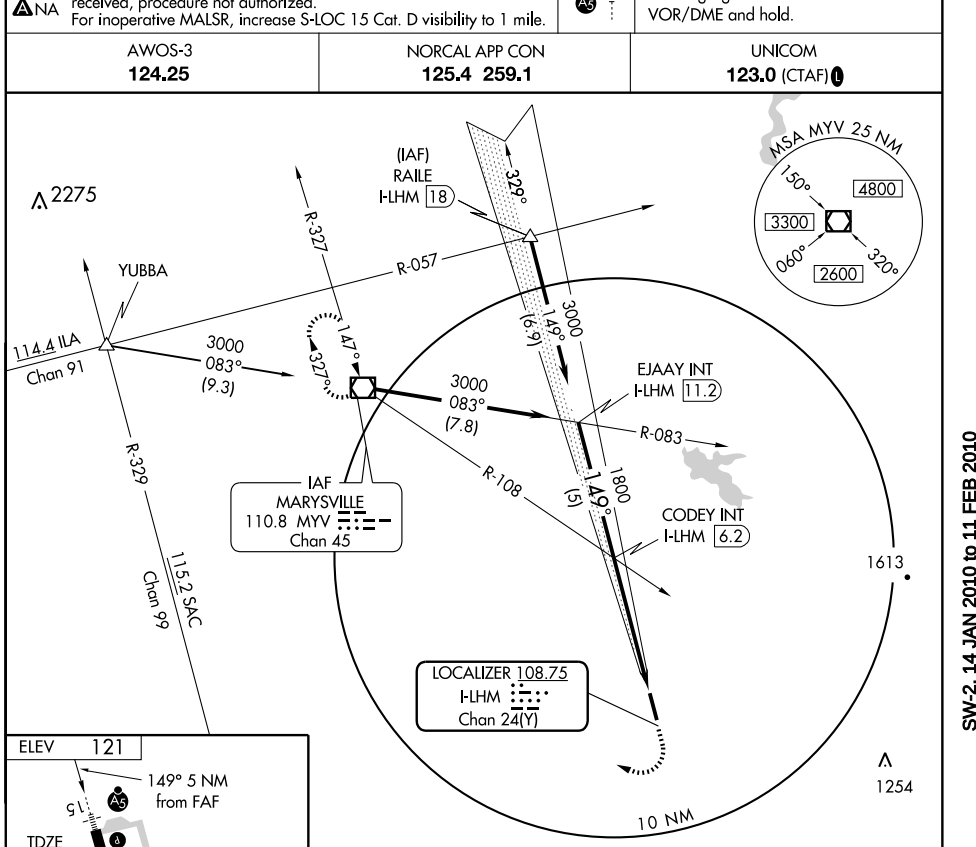
LINCOLN RGNL/KARL HARDER FIELD (LHM)

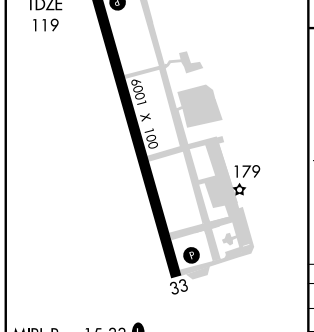
NA — If local altimeter setting not received, use Beale AFB altimeter setting and increase all DH/MDAs 40 feet. When neither is received, procedure not authorized. For inoperative MALSR, increase S-LOC 15 Cat. D visibility to 1 mile.

MALSR

MISSED APPROACH: Climb to 600 then climbing right turn to 3000 direct MYV VOR/DME and hold.

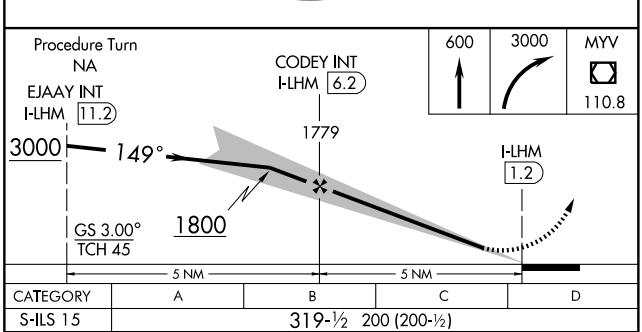
AWOS-3	NORCAL APP CON	UNICOM
124.25	125.4 259.1	123.0 (CTAF) L





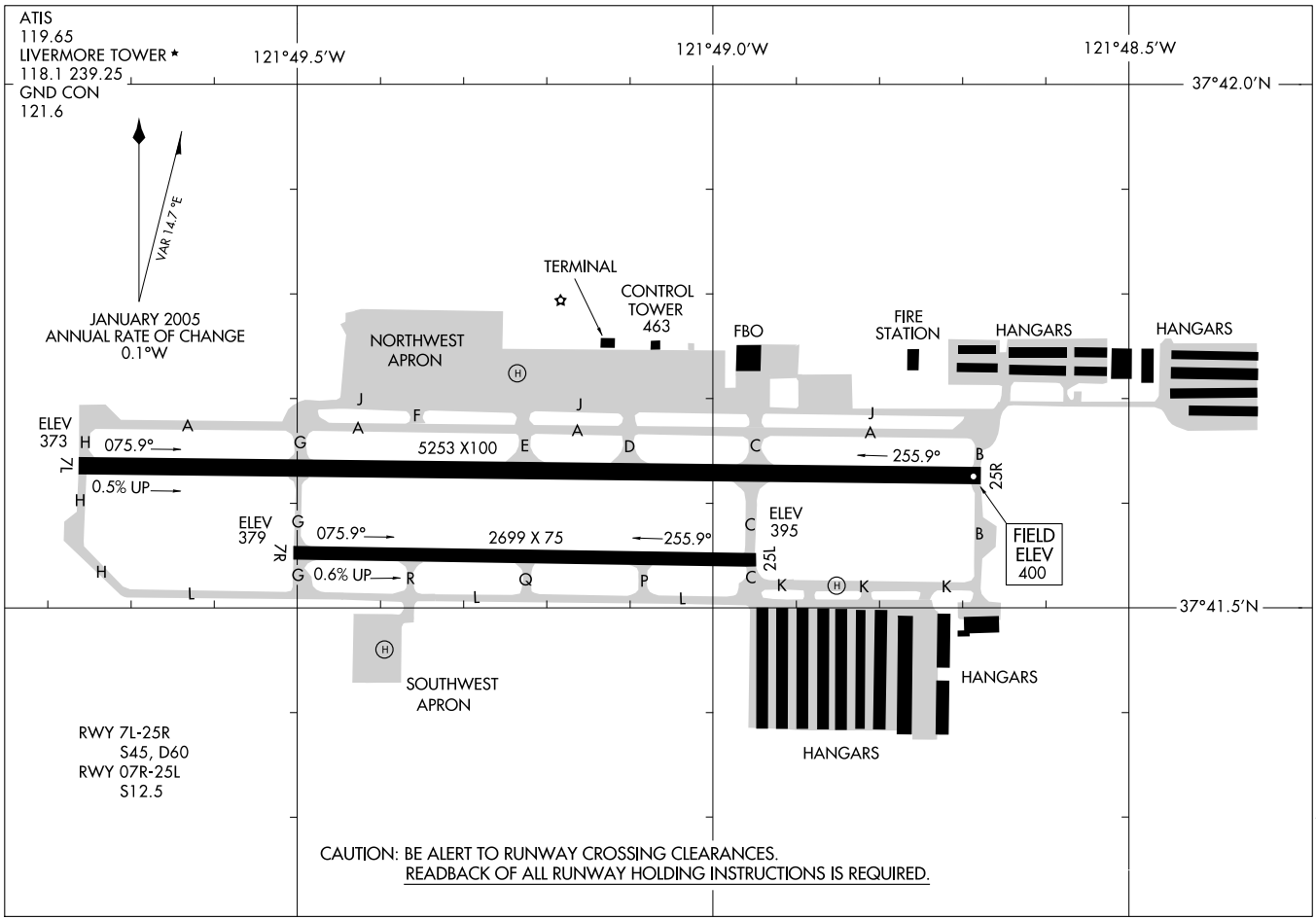
MIRL Rwy 15-33 L

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40



CATEGORY	A	B	C	D
S-ILS 15	319-½ 200 (200-½)			
S-LOC 15	460-½ 341 (400-½)			460-¾ 341 (400-¾)
CIRCLING	500-1 381 (400-1)	580-1 461 (500-1)	580-1½ 461 (500-1½)	680-2 561 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

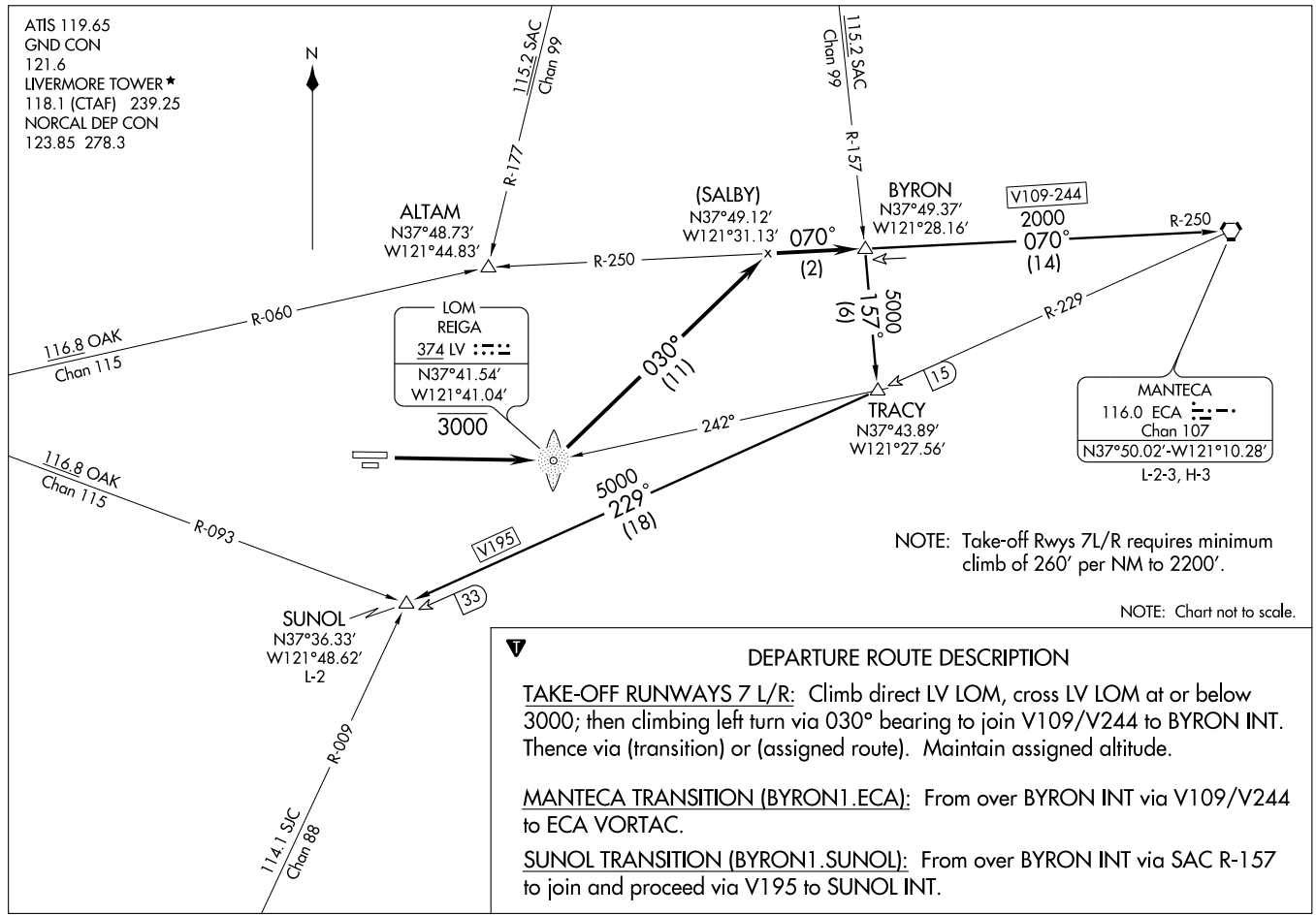


AIRPORT DIAGRAM

AL-6075 (FAA)

LIVERMORE MUNI (LVK)

LIVERMORE, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 7 L/R: Climb direct LV LOM, cross LV LOM at or below 3000; then climbing left turn via 030° bearing to join V109/V244 to BYRON INT. Thence via (transition) or (assigned route). Maintain assigned altitude.

MANTECA TRANSITION (BYRON1.ECA): From over BYRON INT via V109/V244 to ECA VORTAC.

SUNOL TRANSITION (BYRON1.SUNOL): From over BYRON INT via SAC R-157 to join and proceed via V195 to SUNOL INT.

BYRON ONE DEPARTURE (BYRON1.BYRON) 09127

SI-6075 (FAA)

LIVERMORE MUNI (LVK)
LIVERMORE, CALIFORNIA

LOC I-LVK	APP CRS	Rwy Idg	5253
110.5	255°	TDZE	397
		Apt Elev	397

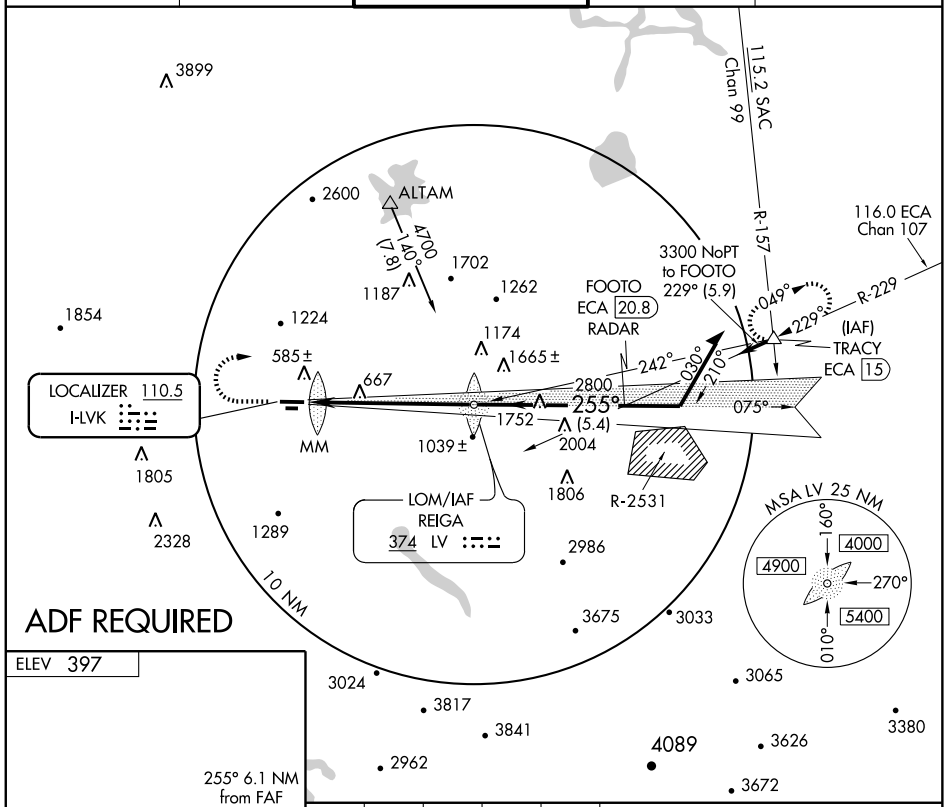
ILS RWY 25R
LIVERMORE MUNI (LVK)

Circling NA north of Rwy 7L-25R.
Autopilot coupled approaches NA below 1700.

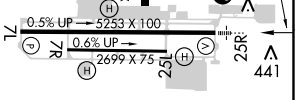
MALSR

MISSED APPROACH: Climb to 1100, then climbing right turn to 3000 direct REIGA LOM, then via REIGA LOM 062° bearing to TRACY Int and hold.

ATIS	NORCAL APP CON	LIVERMORE TOWER ★	GND CON	UNICOM
119.65	123.85 278.3	118.1 (CTAF) L 239.25	121.6	122.95

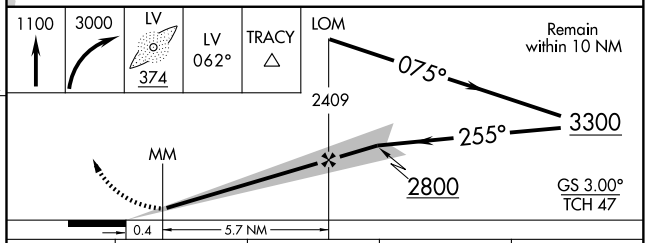


ELEV 397



MIRL Rwy 7L-25R L

FAF to MAP 6.1 NM					
Knots	60	90	120	150	180
Min:Sec	6:06	4:04	3:03	2:26	2:02



CATEGORY	A	B	C	D
S-ILS 25R	597-½ 200 (200-½)			
S-LOC 25R	940-½ 543 (600-½)		940-1 543 (600-1)	940-1¼ 543 (600-1¼)
CIRCLING	940-1 543 (600-1)		940-1½ 543 (600-1½)	1100-2¼ 703 (800-2¼)

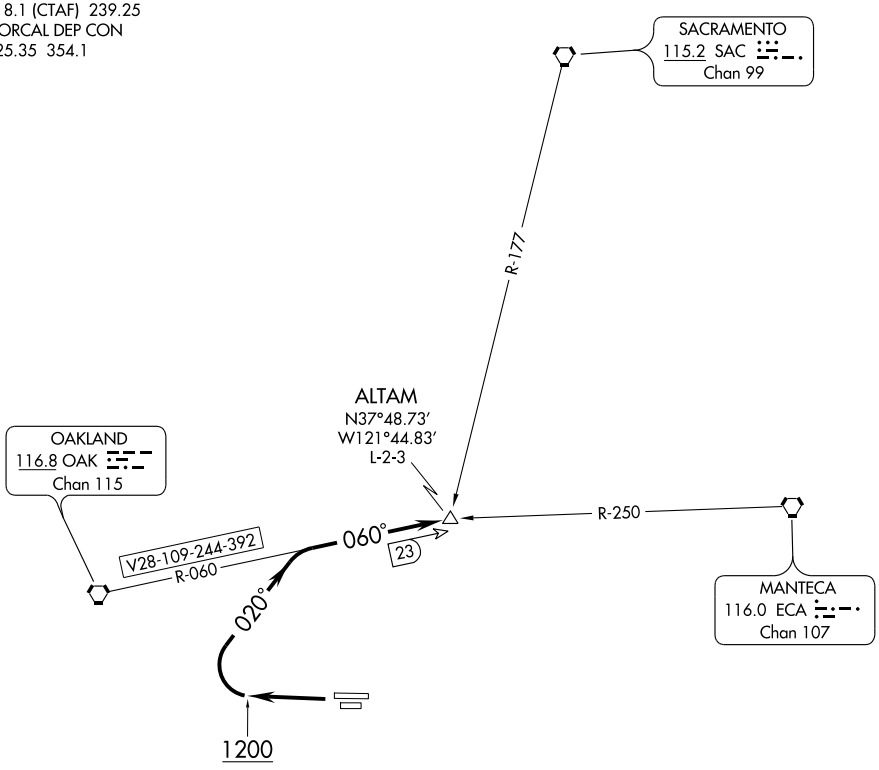
SW-2, 14 JAN 2010 to 11 FEB 2010

LIVERMORE ONE DEPARTURE

SL-6075 (FAA)

LIVERMORE MUNI (LVK)
LIVERMORE, CALIFORNIA

ATIS 119.65
GND CON
121.6
LIVERMORE TOWER*
118.1 (CTAF) 239.25
NORCAL DEP CON
125.35 354.1



TAKE-OFF MINIMUMS: 2300-2 or standard with a minimum climb of 375' per NM to 3100'.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 25 L/R: Climb runway heading to 1200, then climbing right turn heading 020° and OAK R-060 to ALTAM INT. Maintain assigned altitude.

WAAS	APP CRS	Rwy Idg	5253
CH 50214	255°	TDZE	400
W25A		Apt Elev	400

RNAV (GPS) RWY 25R

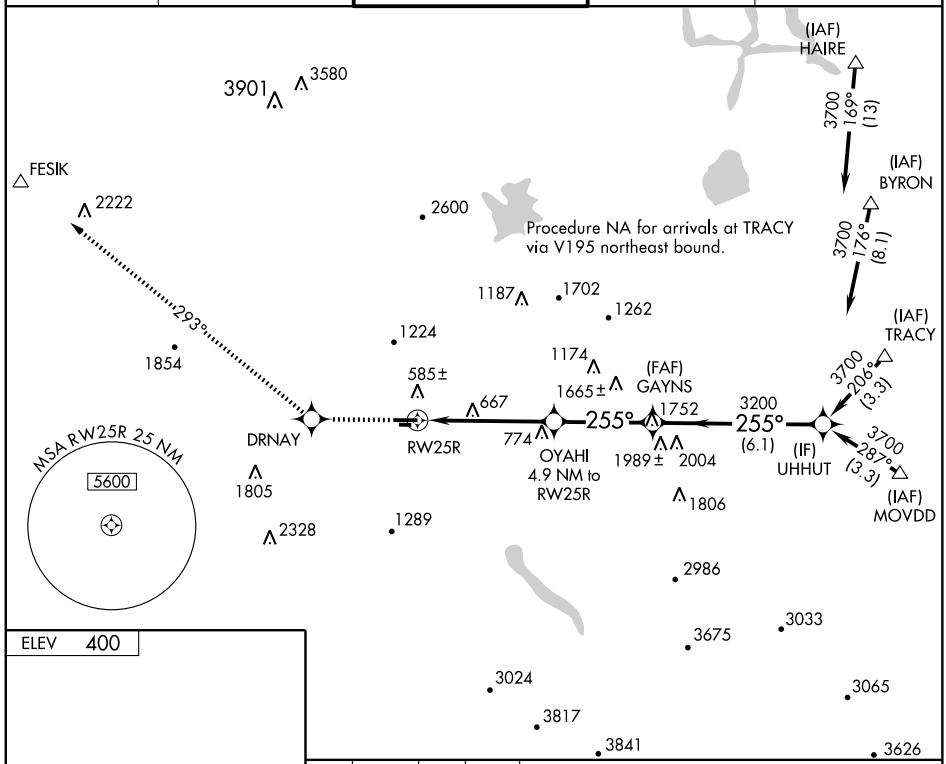
LIVERMORE MUNI (LVK)

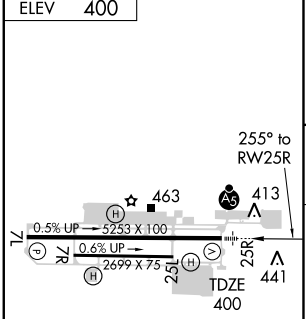
For inoperative MALSR, increase LNAV Cat A and B visiblility to 1 mile.
Circling NA north of Rwy 7L-25R.
DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA.

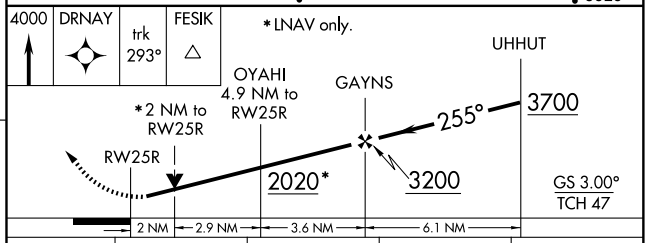
MALSR

MISSED APPROACH: Climb to 4000 direct DRNAY and via track 293° to FESIK.

ATIS	NORCAL APP CON	LIVERMORE TOWER ★	GND CON	UNICOM
119.65	123.85 278.3	118.1 (CTAF) L 239.25	121.6	122.95







CATEGORY	A	B	C	D
LPV DA	720 - ¾		320 (400- ¾)	
LNAV MDA	1080 - ¾	680 (700- ¾)	1080 - 1½ 680 (700- 1½)	1080 - 1¾ 680 (700-1¾)
CIRCLING	1080 - 1	680 (700-1)	1080 - 2 680 (700-2)	1080-2¼ 680 (700-2¼)

MIRL Rwy 7L-25R L

SW-2, 14 JAN 2010 to 11 FEB 2010

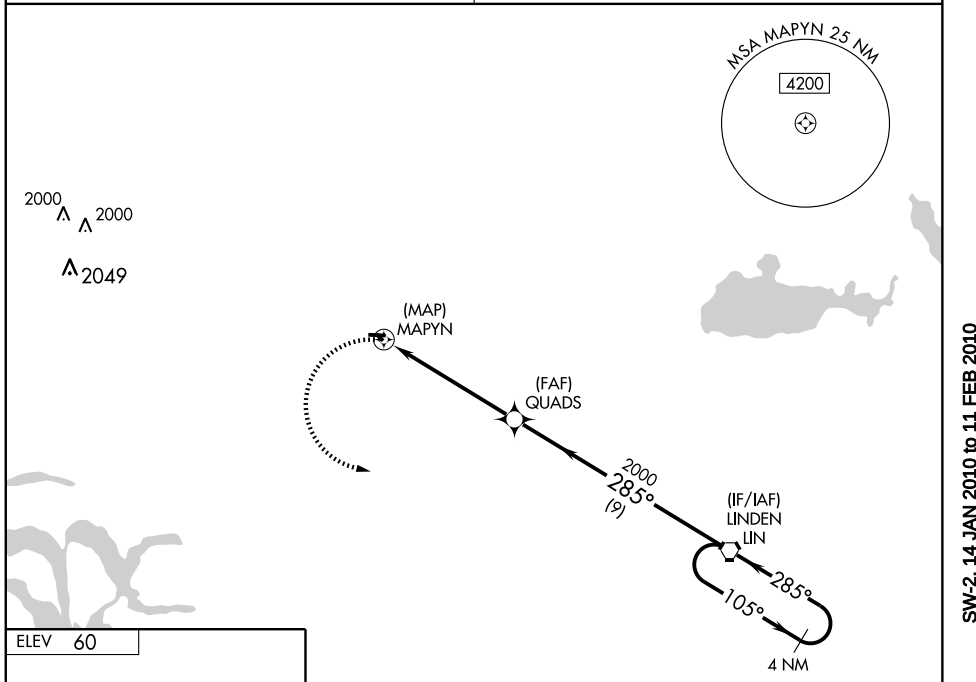
APP CRS	Rwy Idg	N/A
285°	TDZE	N/A
	Apt Elev	60

RNAV (GPS)-B
LODI (103)

DME/DME RNP-0.3 NA.
NA Use Stockton altimeter setting, when not received, use Sacramento Intl altimeter setting and increase all MDA 40 feet.

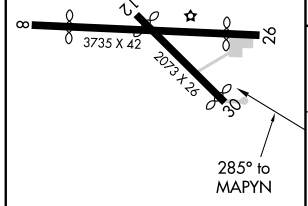
MISSED APPROACH: Climbing left turn to 2000 direct LIN VORTAC and hold.

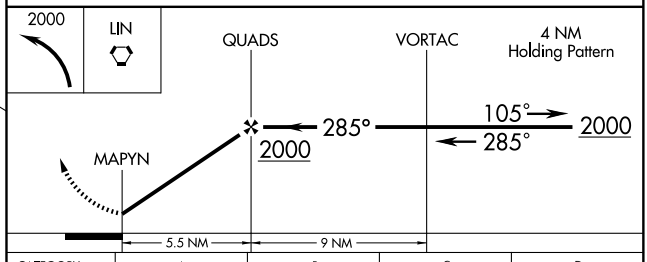
NORCAL APP CON	CTAF
125.1 363.2	122.9



NoPT for arrival on LIN VORTAC airway radials 124 CW 192.

ELEV 60





CATEGORY	A	B	C	D
CIRCLING	640-1 580 (600-1)		NA	

LIRL Rwy 8-26

SW-2, 14 JAN 2010 to 11 FEB 2010

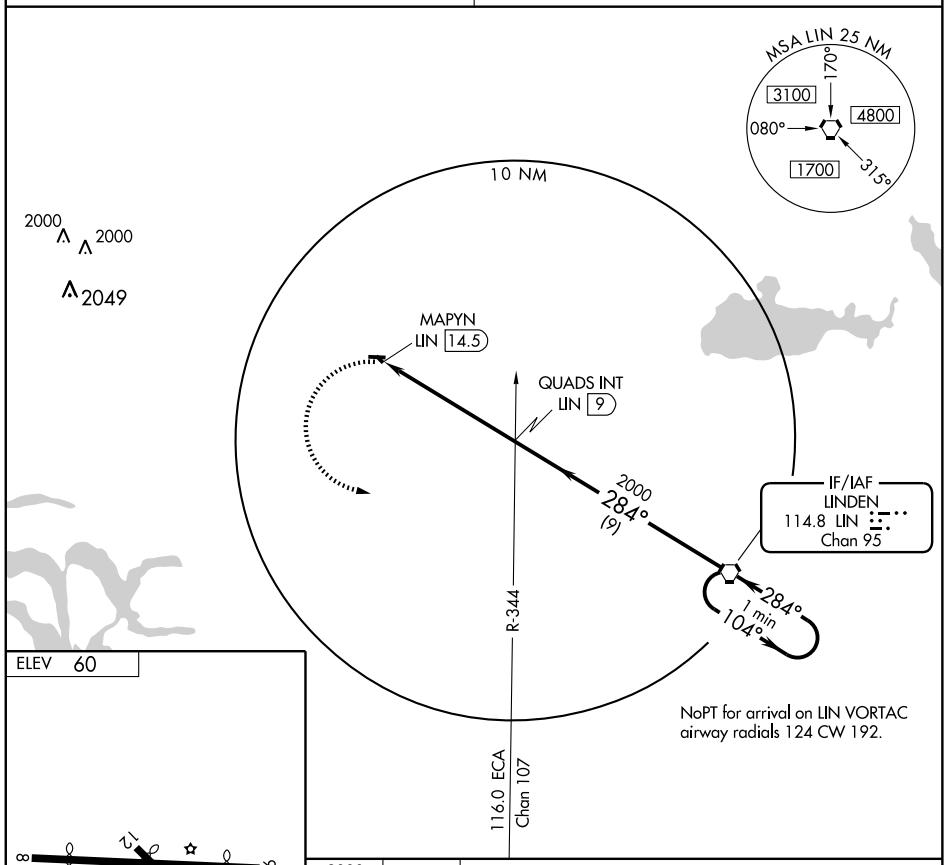
VORTAC LIN 114.8 Chan 95	APP CRS 284°	Rwy Idg N/A TDZE N/A Apt Elev 60

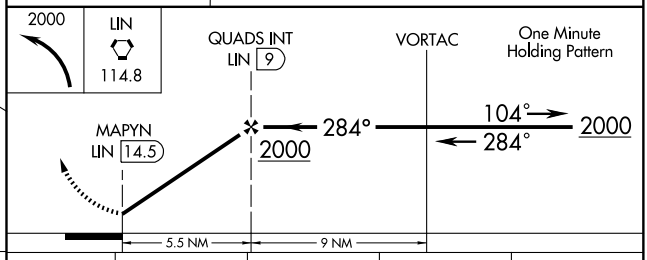
VOR-A
LODI (103)

T
NA Use Stockton altimeter setting, when not received, use Sacramento Intl altimeter setting and increase all MDA 40 feet.

MISSED APPROACH: Climbing left turn to 2000 direct LIN VORTAC and hold.

NORCAL APP CON	CTAF
125.1 363.2	122.9





LIRL Rwy 8-26

FAF to MAP 5.5 NM					
Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50

CATEGORY	A	B	C	D
CIRCLING	640-1 580 (600-1)		NA	

SW-2, 14 JAN 2010 to 11 FEB 2010

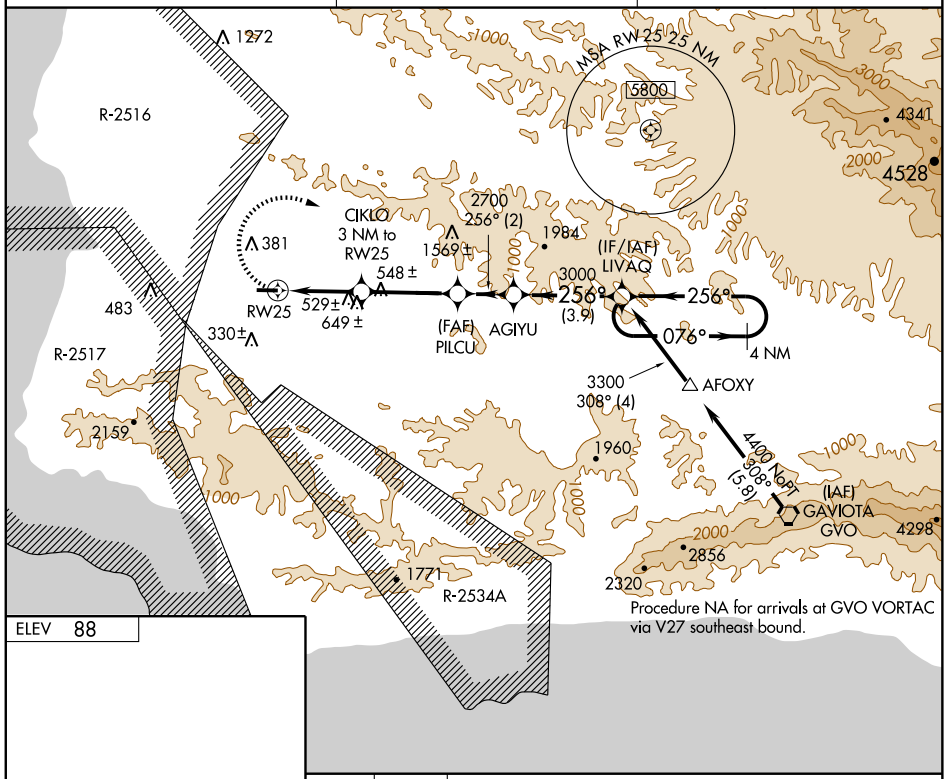
APP CRS	Rwy Idg	4600
256°	TDZE	88
	Apt Elev	88

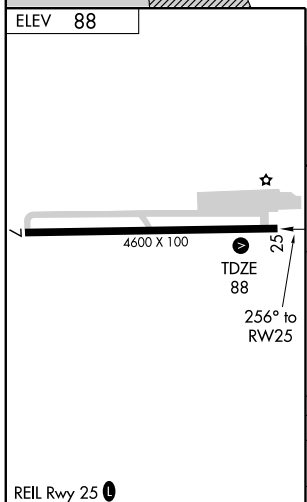
RNAV (GPS) RWY 25
LOMPOC (LPC)

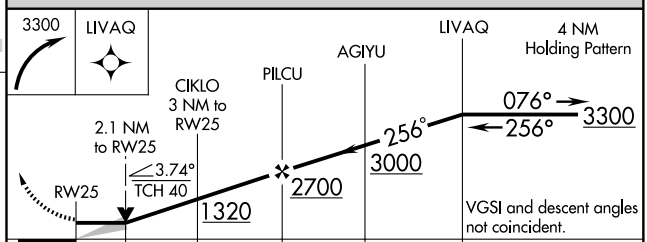
DME/DME RNP-0.3 NA. When local altimeter setting not received, use Santa Maria Public/Captain G. Allan Hancock Field altimeter setting and increase all MDA 60 feet, and increase visibility LNAV and circling Cat B ¼ mile. VDP NA when using Santa Maria Public/Captain G. Allan Hancock Field altimeter setting.

MISSED APPROACH: Climbing right turn to 3300 direct LIVAQ and hold.

AWOS-3	SANTA BARBARA APP CON ★	UNICOM
133.875	124.15 327.8	122.7 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	780-1 692 (700-1)		NA	
CIRCLING	780-1 692 (700-1)		NA	

REIL Rwy 25 L
MIRL Rwy 7-25 L

VORTAC GVO	APP CRS	Rwy Idg	N/A
113.8	278°	TDZE	N/A
Chan 85		Apt Elev	88

VOR/DME-A
LOMPOC (LPC)

MISSED APPROACH: Climb to 1400, then climbing right turn to 3500 direct GLJ VOR and hold.

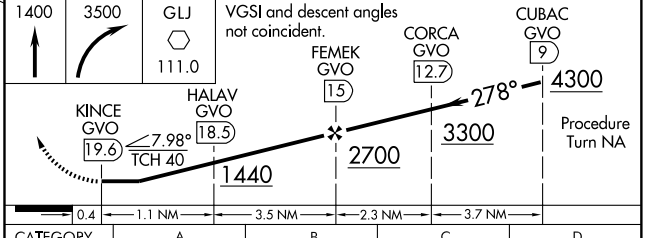
AWOS-3	SANTA BARBARA APP CON ★	UNICOM
133.875	124.15 327.8	122.7 (CTAF) L

R-300 120° 300°
GUADALUPE 111.0 GLJ
3016 3388 1645 1410 1272 4341 1984
MSA GVO 25 NM 140° 360° 4700 8100
R-2516
HALAV GVO 18.5
FEMEK GVO 15
KINCE GVO 19.6
CUBAC GVO 9
CORCA GVO 12.7
381 483 548± 1052± 791± 682± 330± 929±
2700 278° (2.3)
3300 278° (3.7)
10 NM
R-278
4300 278° (9)
IAF GAVIOTA 113.8 GVO Chan 85
1960 2856 2320
R-2534A R-2534B 1771

ELEV 88
4600 X 100
25
278° 5 NM from FAF

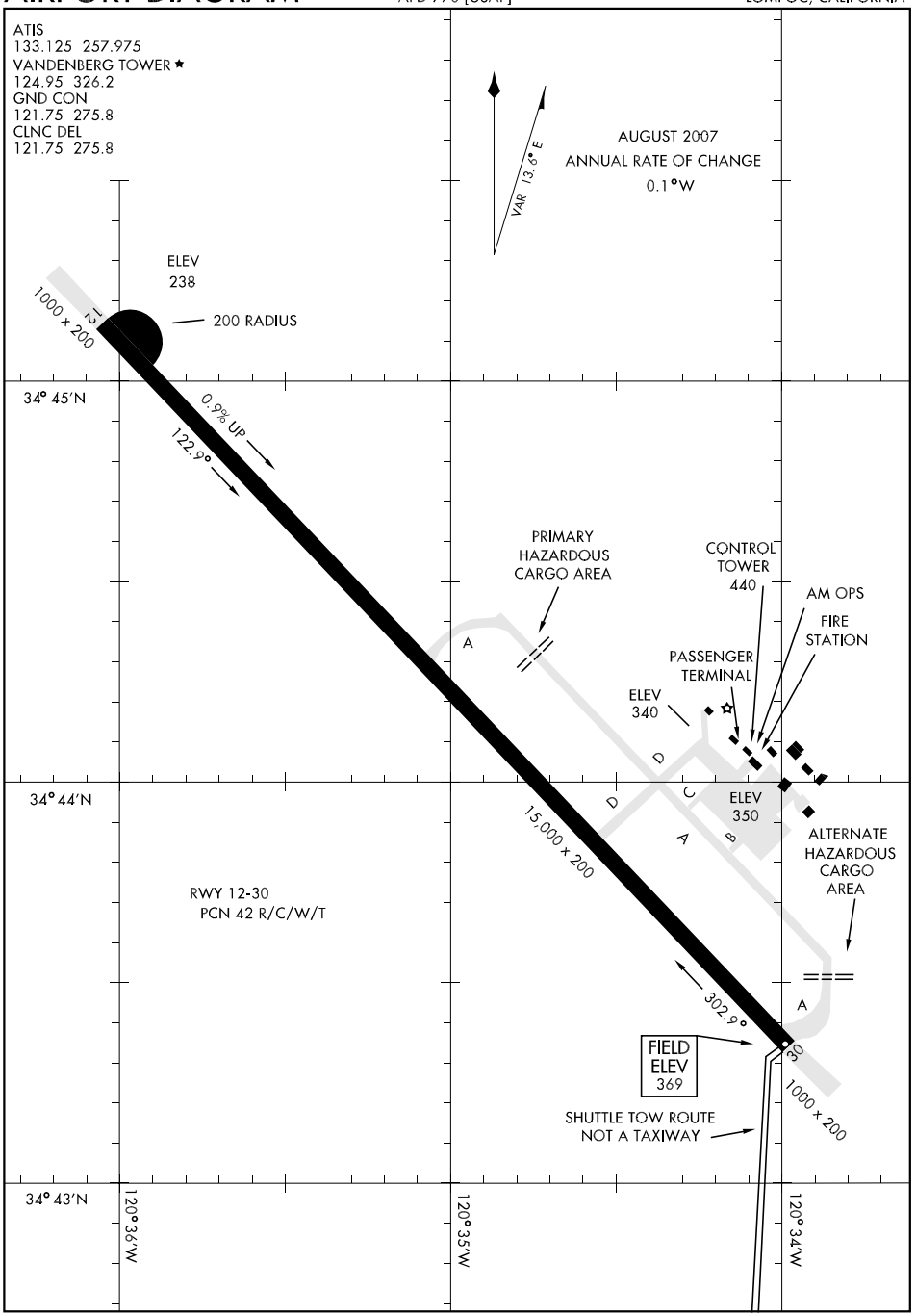
1400	3500	GLJ 111.0

VGSI and descent angles not coincident.



CATEGORY	A	B	C	D
CIRCLING	920-1 832 (900-1)	920-1¼ 832 (900-1¼)	NA	

REIL Rwy 25 L
MIRL Rwy 7-25 L



SW-3, 14 JAN 2010 to 11 FEB 2010

GAVIOTA ONE DEPARTURE (GVO1.GVO)

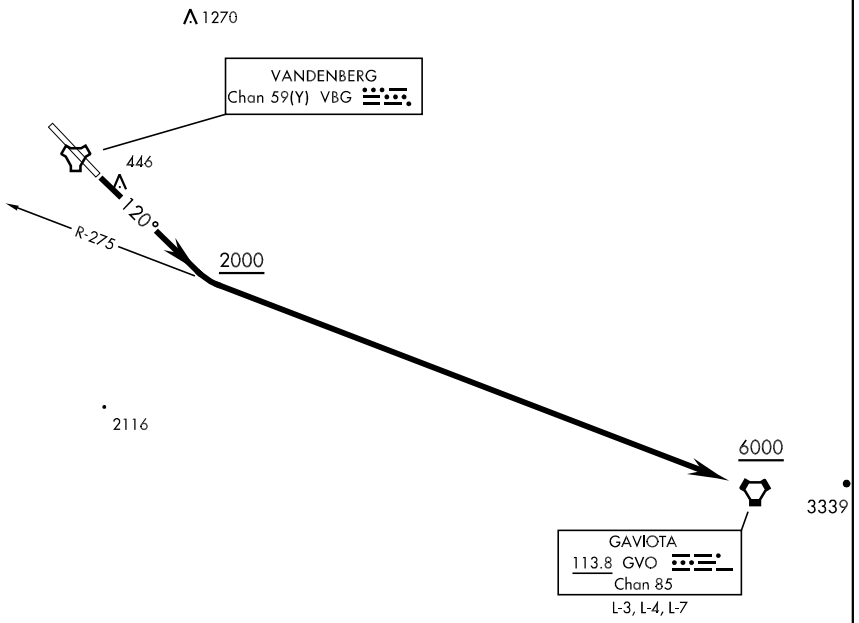
SL-770 [USAF]

LOMPOC, CALIFORNIA

Rwy	Knots	60	120	180	240
12	V/V(fpm)	280	560	840	1120

Minimum Climb Rate to 2000.

ATIS
133.125 257.975
GND CON
121.75 275.8
CLNC DEL
121.75 275.8
VANDENBERG TOWER
124.95 326.2
SANTA BARBARA DEP CON
124.15 327.8



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 12: Cross DER at or above 35' AGL/404' MSL, climb on track 120° to 2000 then turn left and intercept the GVO VORTAC R-275 inbound. Cross GVO at or above 6000. Expect vectors to first filed fix/route prior to GVO.

GAVIOTA ONE DEPARTURE (GVO1.GVO)

LOMPOC, CALIFORNIA

HI-ILS or LOC/DME RWY 12

LOC I-BVD	APCH CRS	Rwy Idg 15,000 TDZE 267 Arpt Elev 369
110.1	123°	

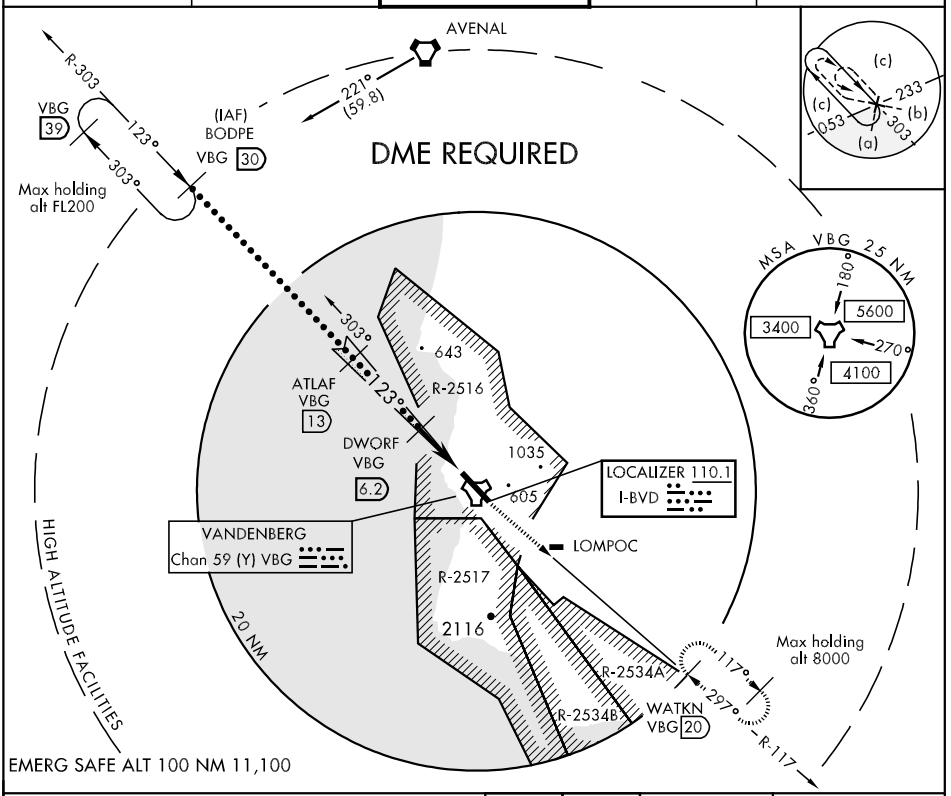
JAL-770 [USAF] VANDENBERG AFB (KVBG)

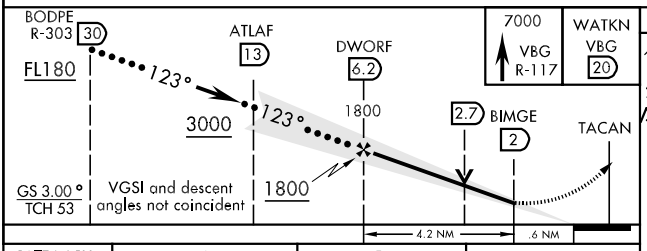
▼ * When ALS inop, increase RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT C RVR to 60 and vis to 1¼ mile, CAT DE vis to 1½ mile.

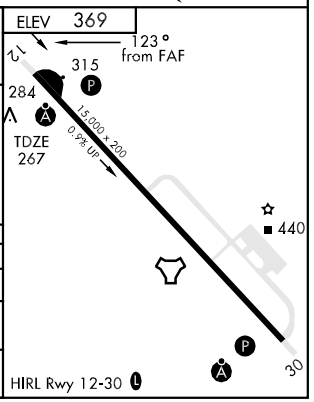
ALSF-2

MISSED APPROACH: Climb out VBG TACAN R-117 until 20 DME (WATKN) and hold. Continue climb in hold maintain 7000.

ATIS	SANTA BARBARA APP/DEP CON	VANDENBERG TOWER ★	GND CON	CLNC DEL
133.125 257.975	124.15 327.8	124.95 L (CTAF) 326.2	121.75 275.8	121.75 275.8







CATEGORY	C	D	E
S-ILS 12 *	467/24 200 (100-½)		
S-LOC/DME 12 **	700/40 433 (400-¾)	700/50 433 (400-1)	
CIRCLING	1020-1¾ 651 (700-1¾)	1040-2¼ 671 (700-2¼)	1540-3 1171 (1200-3)

HI-ILS or LOC/DME RWY 30

LOC I-VBG	APCH CRS	Rwy Idg / TDZE / Arpt Elev
110.1	303°	15,000 / 369 / 369

JAL-770 [USAF]

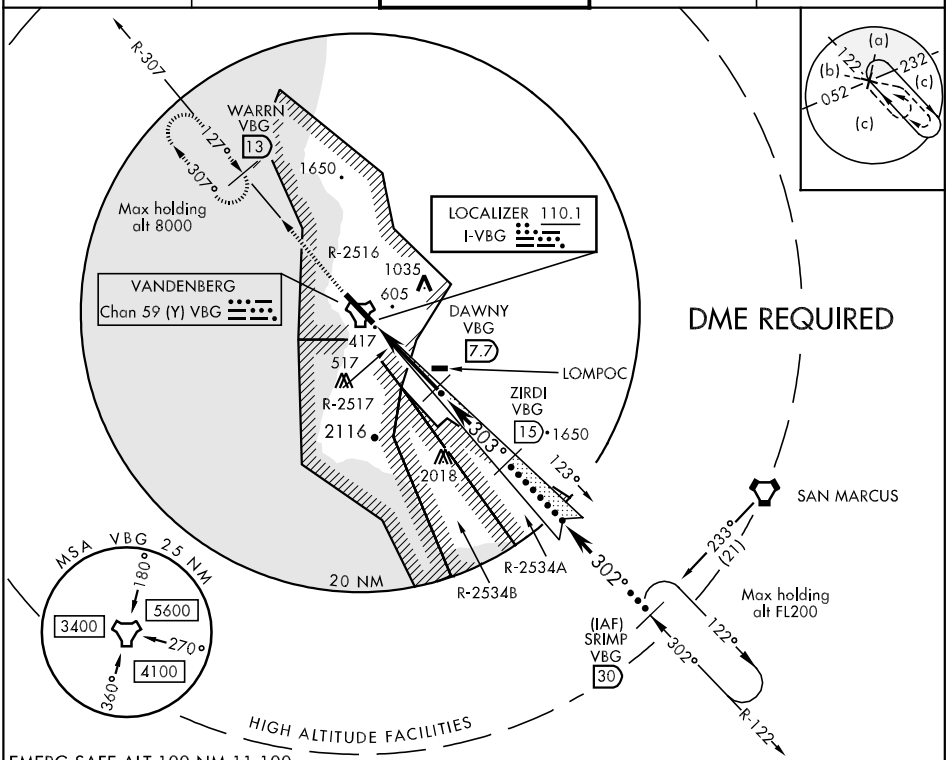
VANDENBERG AFB (KVBG)

* When ALS inop, increase CAT CDE RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT C vis to 1½ miles, CAT D vis to 1¾ miles, CAT E vis to 2 miles.

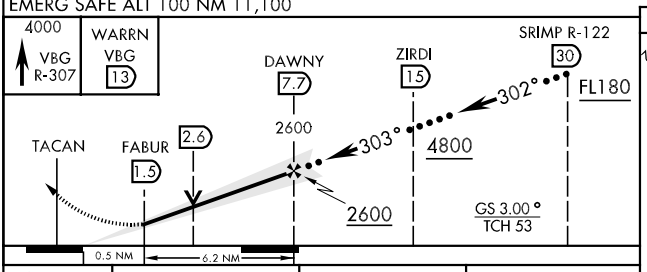
ALSF-2

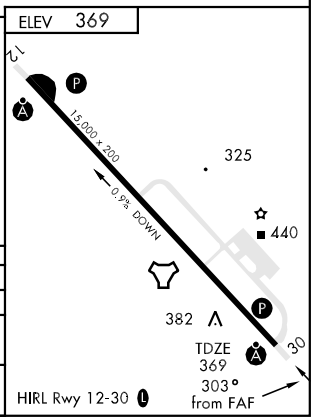
MISSED APPROACH: Climb out VBG TACAN R-307 to WARRN and hold. Continue climb in hold maintain 4000.

ATIS	SANTA BARBARA APP/DEP CON	VANDENBERG TOWER ★	GND CON	CLNC DEL
133.125 257.975	124.15 327.8	124.95 (CTAF) 326.2	121.75 275.8	121.75 275.8



EMERG SAFE ALT 100 NM 11,100





CATEGORY	C	D	E
S-ILS 30 *	569/24	200 (200-½)	
S-LOC/DME 30 **	940/50 571 (600-1)	940/60 571 (600-1¼)	940-1½ 571 (600-1½)
CIRCLING	1020-1¾ 651 (700-1¾)	1040-2¼ 671 (700-2¼)	1540-3 1171 (1200-3)

SW-3, 14 JAN 2010 to 11 FEB 2010

HI-TACAN RWY 12

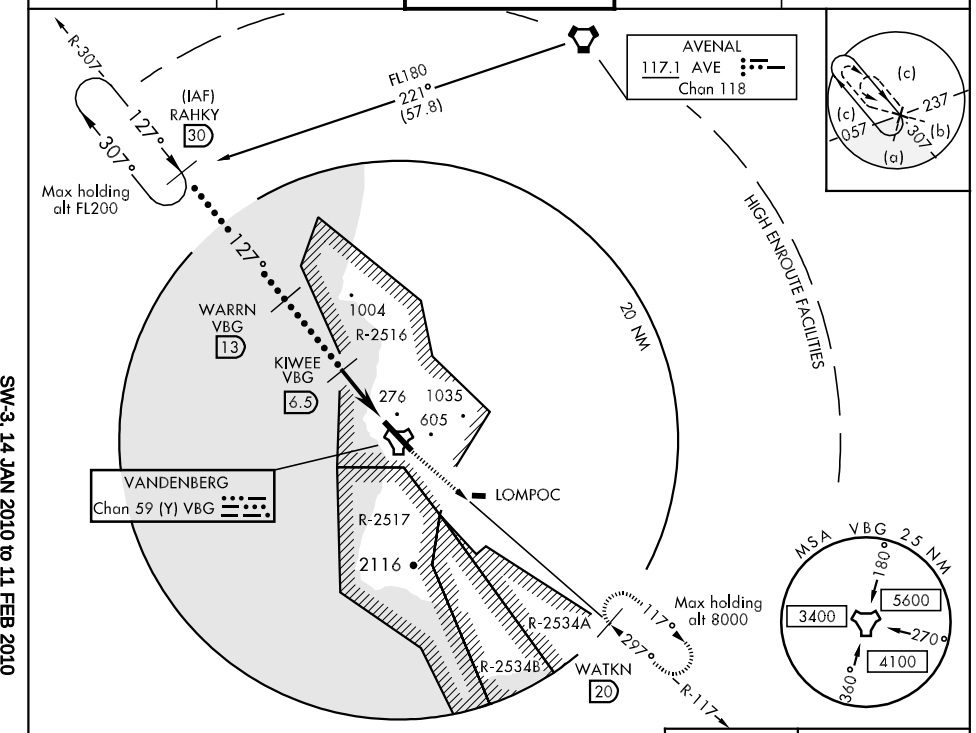
TACAN VBG Chan 59(Y)	APCH CRS 127°	Rwy Idg 15,000 TDZE 267 Arpt Elev 369	JAL-770 [USAF]	VANDENBERG AFB (KVBG)

▼ * When ALS inop, increase CAT C RVR to 60 and vis to 1¼ miles, CAT DE increase vis to 1½ miles.

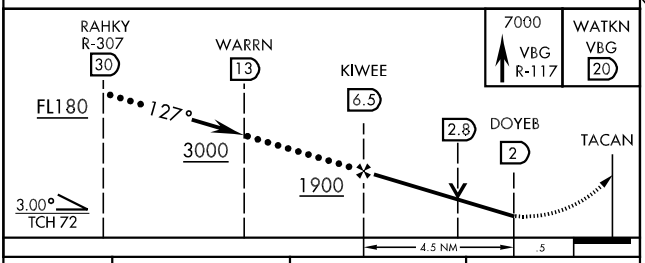
ALSF-2

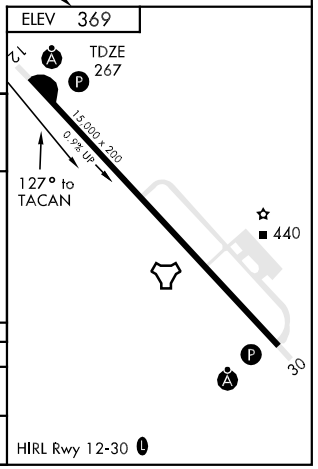
MISSED APPROACH: Climb out VBG TACAN R-117 until 20 DME (WATKN) and hold. Continue climb in hold maintain 7000.

ATIS	SANTA BARBARA APP/DEP CON	VANDENBERG TOWER ★	GND CON	CLNC DEL
133.125 257.975	124.15 327.8	124.95 (L) (CTAF) 326.2	121.75 275.8	121.75 275.8



EMERG SAFE ALT 100 NM 11,100





CATEGORY	C	D	E
S-12 *	740/40 473 (400-¾)	740/50 473 (400-1)	740/60 473 (400-1¼)
CIRCLING	1020-1¾ 651 (700-1¾)	1040-2 ¼ 671 (700-2¼)	1540-3 1171 (1200-3)

HI-TACAN RWY 30

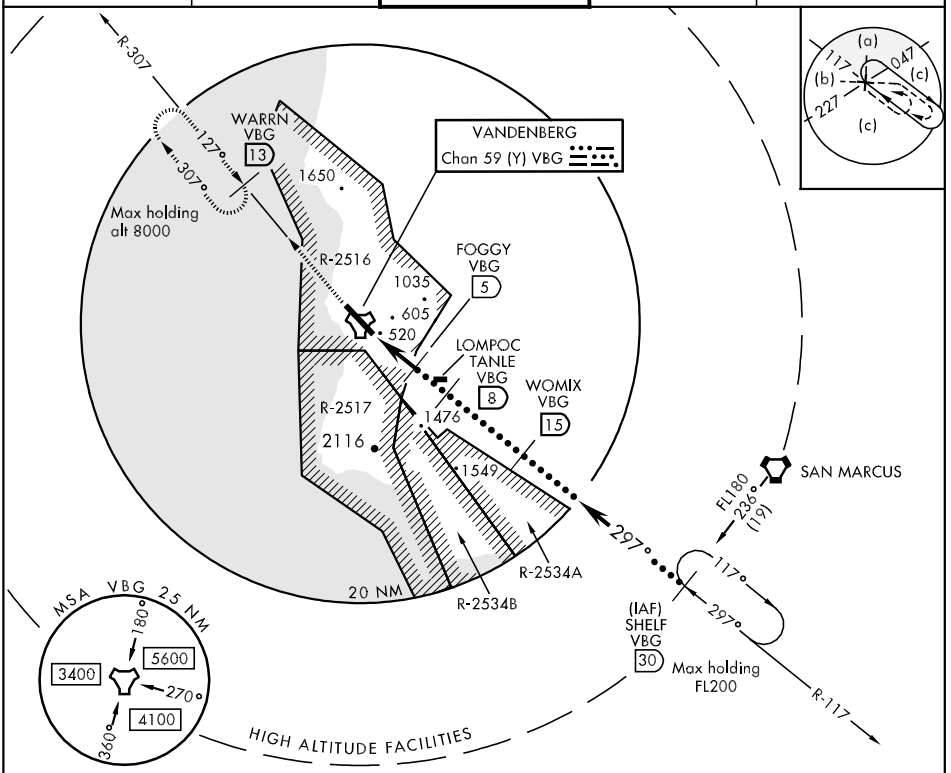
TACAN VBG Chan 59(Y)	APCH CRS 297°	Rwy ldg 15,000 TDZE 369 Arpt Elev 369	JAL-770 [USAF]	VANDENBERG AFB (KVBG)

▼ * When ALS inop, increase CAT C vis to 1½ miles, CAT D vis to 1¾ miles, and CAT E vis to 2 miles.

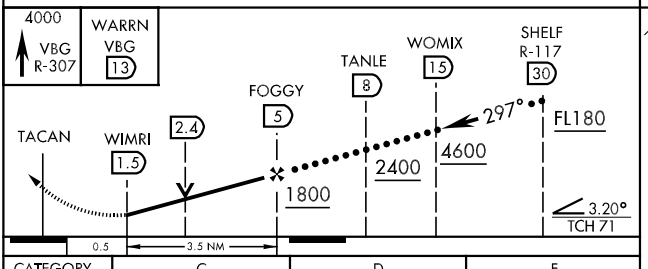
ALSF-2

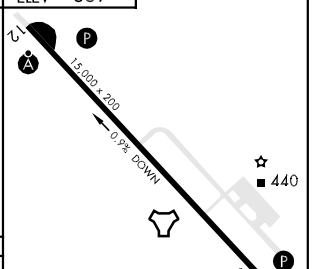
MISSED APPROACH: Climb out VBG TACAN R-307 to WARRN and hold. Continue climb in hold maintain 4000.

ATIS	SANTA BARBARA APP/DEP CON	VANDENBERG TOWER ★	GND CON	CLNC DEL
133.125 257.975	124.15 327.8	124.95 (L) (CTAF) 326.2	121.75 275.8	121.75 275.8



EMERG SAFE ALT 100 NM 11,100





CATEGORY	C	D	E
S-30 *	920/50 551 (600-1)	920/60 551 (600-1¼)	920-1½ 551 (600-1½)
CIRCLING	1020-1¾ 651 (700-1¾)	1040-2¼ 671 (700-2¼)	1540-3 1171 (1200-3)

ILS or LOC/DME RWY 12

LOC I-BVD	APCH CRS	Rwy ldg 15,000 / TDZE 267 / Arpt Elev 369
110.1	123°	

AL-770 [USAF]

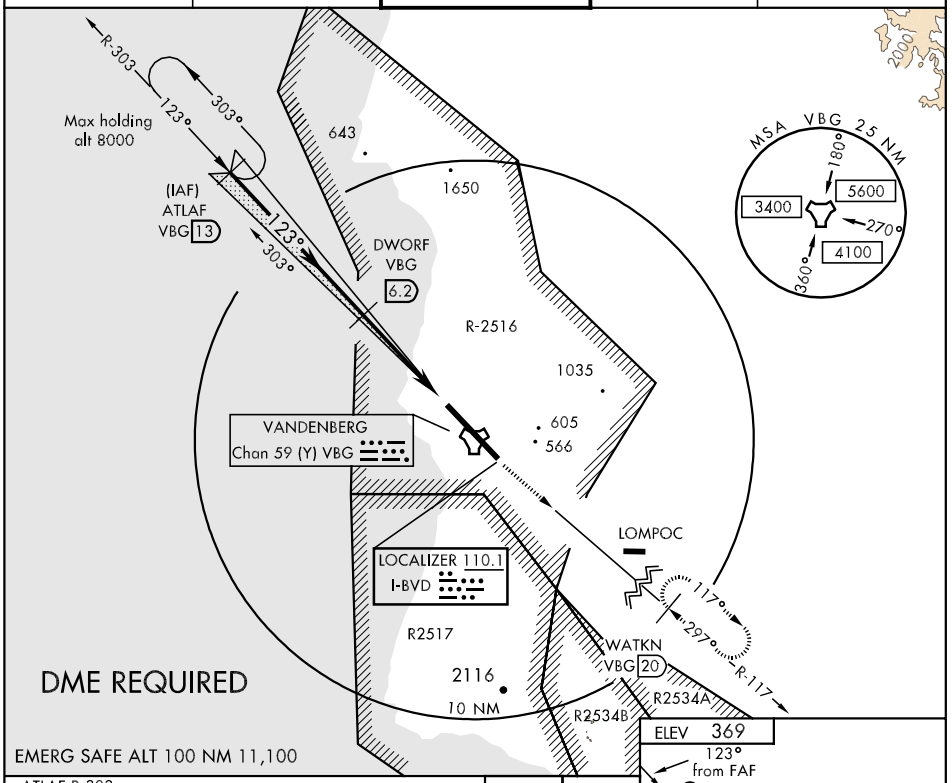
VANDENBERG AFB (KVBG)

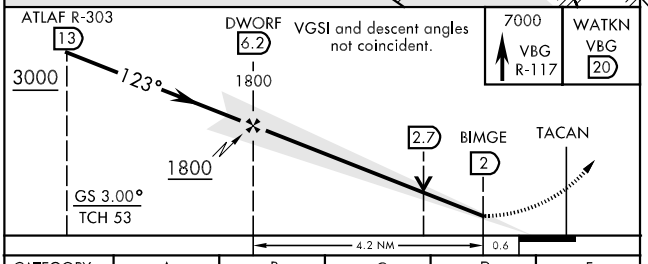
T * When ALS inop, increase RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT C RVR to 60 and vis to 1¼ mile, CAT DE vis to 1½.

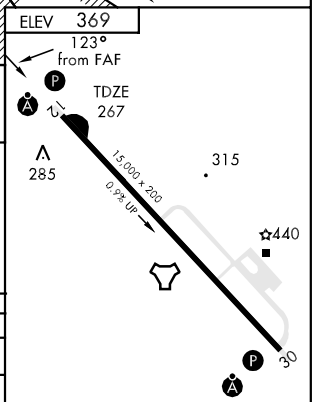
ALSF-2

MISSED APPROACH: Climb out VBG TACAN R-117 until 20 DME (WATKN) and hold. Continue climb in hold maintain 7000.

ATIS	SANTA BARBARA APP/DEP CON	VANDENBERG TOWER ★	GND CON	CLNC DEL
133.125 257.975	124.15 327.8	124.95 L (CTAF) 326.2	121.75 275.8	121.75 275.8







CATEGORY	A	B	C	D	E
S-ILS 12 *	467/24		200 (100-½)		
S-LOC/DME 12 **	700/24	433 (400-½)	700/40 433 (400-¾)	700/50	433 (400-1)
CIRCLING	980-1 611 (700-1)	1000-1 631 (700-1)	1020-1¾ 651 (700-1¾)	1040-2¼ 671 (700-2¼)	1540-3 1171(1200-3)

HIRL Rwy 12-30 L

ILS or LOC/DME RWY 30

LOC I-VBG	APCH CRS	Rwy ldg	TDZE	Arpt Elev
110.1	303°	15,000	369	369

AL-770 [USAF]

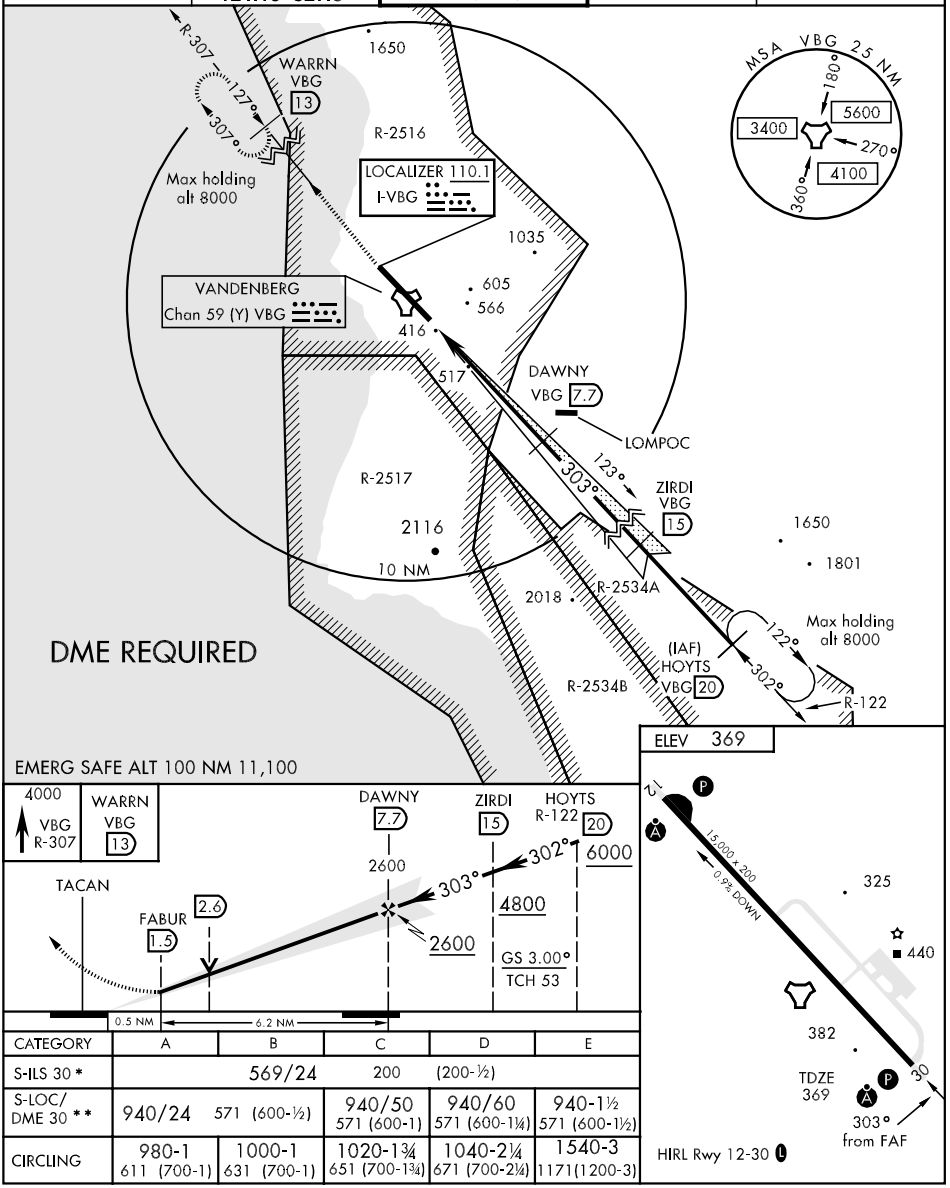
VANDENBERG AFB (KVBG)

▼ * When ALS inop, increase CAT ABCDE RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C vis to 1½ miles, CAT D vis to 1¾ miles, CAT E vis to 2 miles.

ALSF-2

MISSED APPROACH: Climb out VBG TACAN R-307 to WARRN and hold. Continue climb in hold maintain 4000.

ATIS	SANTA BARBARA APP/DEP CON	VANDENBERG TOWER ★	GND CON	CLNC DEL
133.125 257.975	124.15 327.8	124.95 (L) (CTAF) 326.2	121.75 275.8	121.75 275.8



CATEGORY	A	B	C	D	E
S-ILS 30 *	569/24		200 (200-½)		
S-LOC/DME 30 **	940/24	571 (600-½)	940/50 571 (600-1)	940/60 571 (600-1¼)	940-1½ 571 (600-1½)
CIRCLING	980-1 611 (700-1)	1000-1 631 (700-1)	1020-1¾ 651 (700-1¾)	1040-2¼ 671 (700-2¼)	1540-3 1171(1200-3)

TACAN RWY 12

TACAN VBG Chan 59(Y)	APCH CRS 127°	Rwy ldg 15,000 TDZE 267 Arpt Elev 369

AL-770 [USAF]

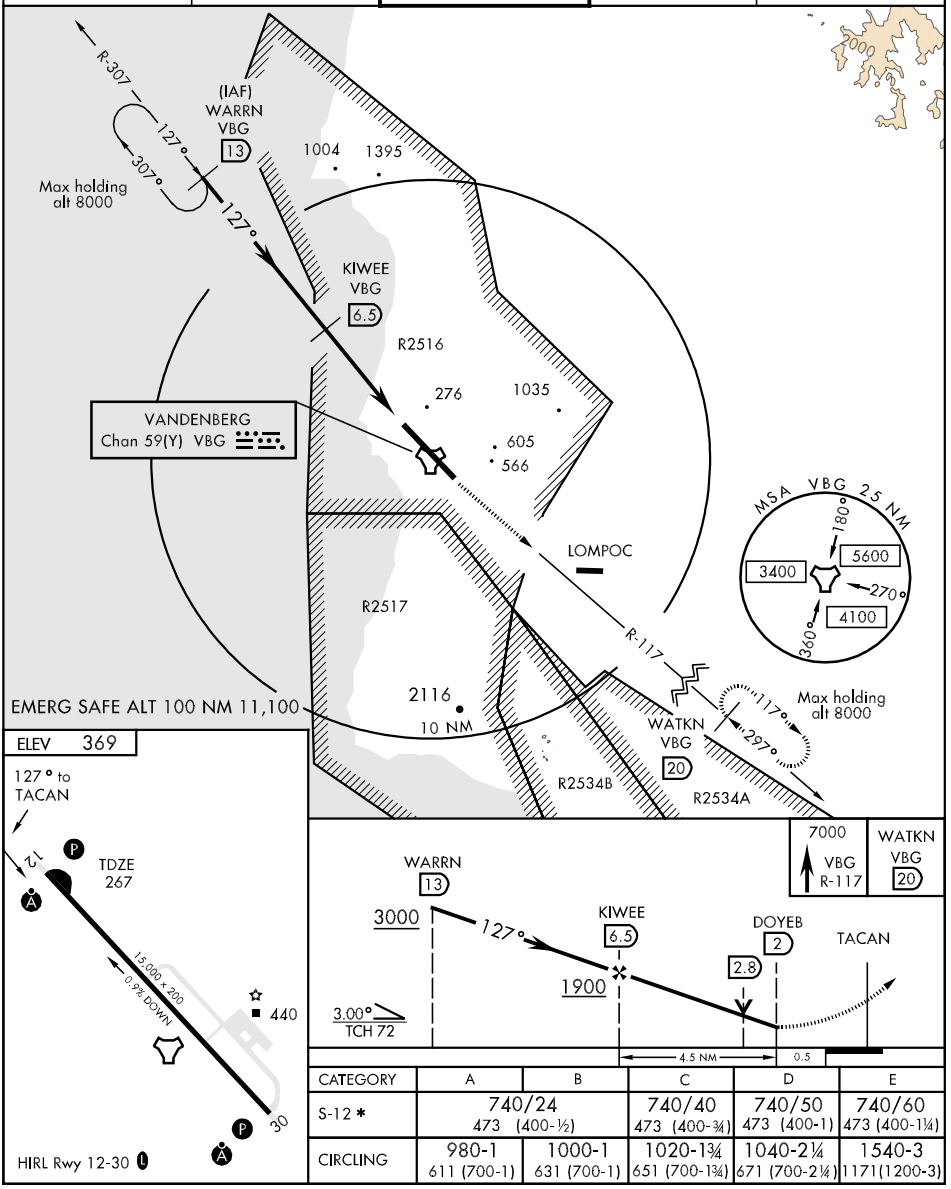
VANDENBERG AFB (KVBG)

* When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C RVR to 60 and vis to 1¼ miles, CAT DE increase vis to 1½ miles.

ALSF-2

MISSED APPROACH: Climb out VBG TACAN R-117 until 20 DME (WATKN) and hold. Continue climb in hold maintain 7000.

ATIS	SANTA BARBARA APP/DEP CON	VANDENBERG TOWER ★	GND CON	CLNC DEL
133.125 257.975	124.15 327.8	124.95 (L) (CTAF) 326.2	121.75 275.8	121.75 275.8



CATEGORY	A	B	C	D	E
S-12 *	740/24 473 (400-½)		740/40 473 (400-¾)	740/50 473 (400-1)	740/60 473 (400-1¼)
CIRCLING	980-1 611 (700-1)	1000-1 631 (700-1)	1020-1¾ 651 (700-1¾)	1040-2¼ 671 (700-2¼)	1540-3 1171(1200-3)

SW-3, 14 JAN 2010 to 11 FEB 2010

TACAN RWY 30

TACAN VBG Chan 59(Y)	APCH CRS 297°	Rwy ldg 15,000 TDZE 369 Arpt Elev 369

AL-770 [USAF]

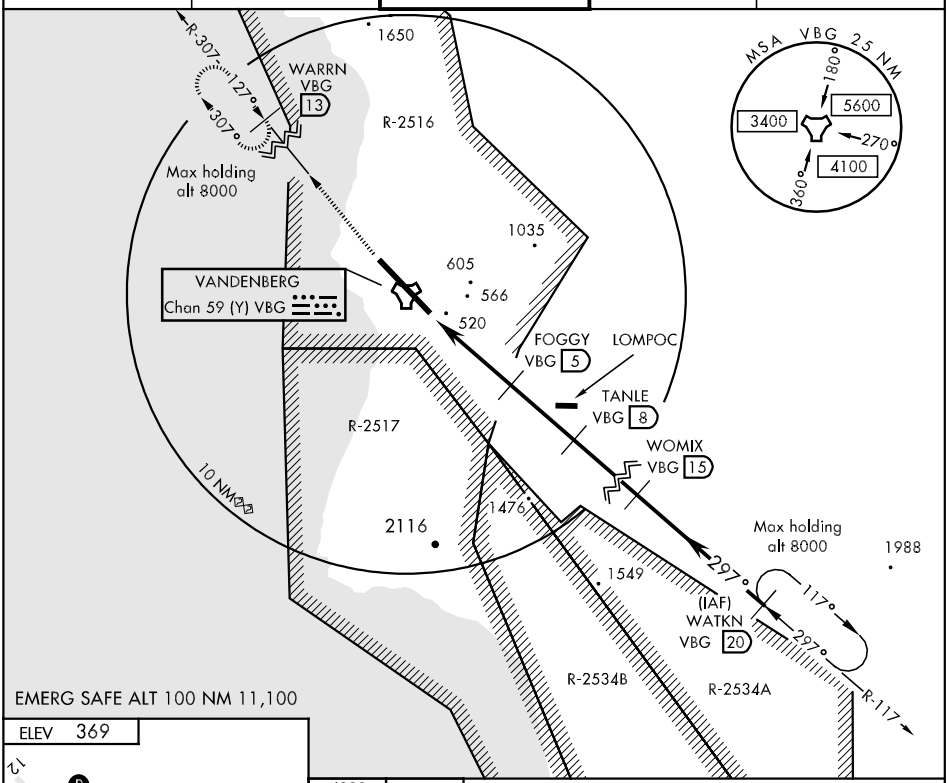
VANDENBERG AFB (KVBG)

▼ * When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C vis to 1½ miles, CAT D vis to 1¾ miles and CAT E vis to 2 miles.

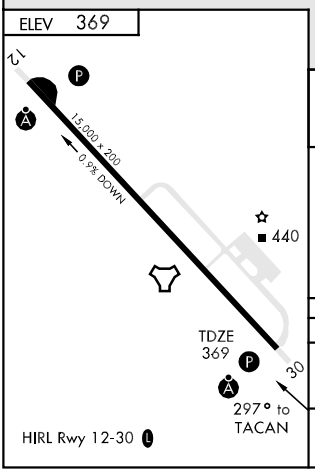
ALSF-2

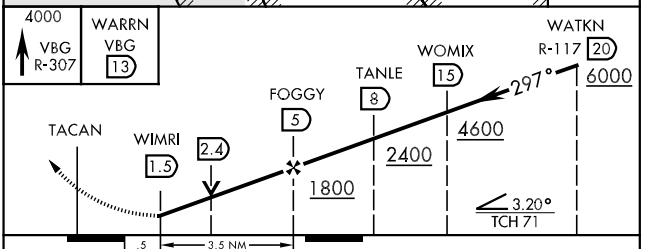
MISSED APPROACH: Climb out VBG TACAN R-307 to WARRN and hold. Continue climb in hold maintain 4000.

ATIS	SANTA BARBARA APP/DEP CON	VANDENBERG TOWER ★	GND CON	CLNC DEL
133.125 257.975	124.15 327.8	124.95 (L) (CTAF) 326.2	121.75 275.8	121.75 275.8



EMERG SAFE ALT 100 NM 11,100





CATEGORY	A	B	C	D	E
S-30 *	920/24 551 (600-½)		920/50 551 (600-1)	920/60 551(600-1¼)	920-1½ 551(600-1½)
CIRCLING	980-1 611 (700-1)	1000-1 631 (700-1)	1020-1¾ 651(700-1¾)	1040-2¼ 671(700-2¼)	1540-3 1171(1200-3)

VANDENBERG ONE DEPARTURE (VBG1.MQO)

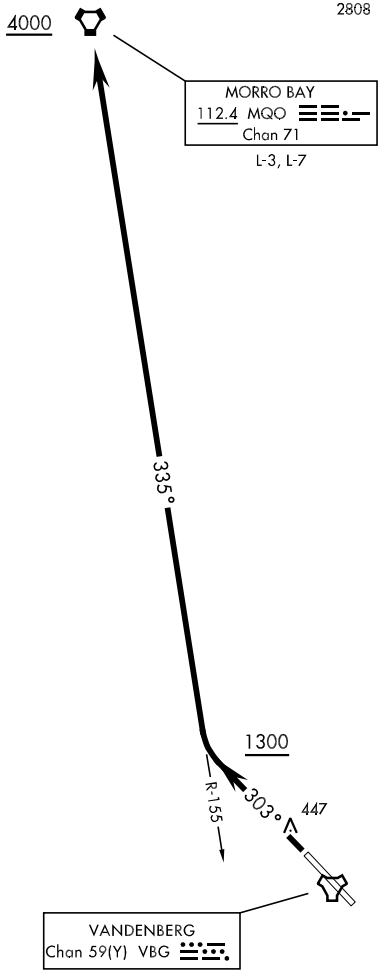
LOMPOC, CALIFORNIA

SL-770 [USAF]

Rwy	Knots	60	120	180	240
30	V/V(fpm)	230	460	690	920

● Minimum Climb Rate to 700.

ATIS
133.125 257.975
GND CON
121.75 275.8
CLNC DEL
121.75 275.8
VANDENBERG TOWER
124.95 326.2
SANTA BARBARA DEP CON
124.15 327.8



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 30: Cross DER at or above 35' AGL/274' MSL, climb on track 303° to join MQO VORTAC R-155 at or above 1300, direct MQO. Cross MQO at or above 4000. Expect vectors to first filed fix/route prior to MQO.

VANDENBERG ONE DEPARTURE (VBG1.MQO)

LOMPOC, CALIFORNIA

09295

AIRPORT DIAGRAM

AL-236 (FAA)

LONG BEACH (DAUGHERTY FIELD) (LGB)

LONG BEACH, CALIFORNIA

ATIS
127.75
LONG BEACH TOWER ★
120.5 257.6 (RWY 12)
119.4 257.6 (RWY 30)
GND CON
133.0 257.6
CLNC DEL
118.15

D

33°50′N

JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°W

VAR 13.2° E

FIELD ELEV 60

7L

0.4% DOWN
121.5°

LAHSO

ELEV 50

16R

HOT[1]

6192 X 150

16L

ELEV 41

257.0°

ELEV 37

25R

077.0°

ELEV 57

HOT[2]

0.3% UP

166.7°

10000 X 200

166.9°

4267 X 75

4470 X 75

LAHSO

TERMINAL, NWS, AND AIRPORT BEACON

33°49′N

HOT[3]

FIRE STATION

HOT[4]

LAHSO

346.7°

346.9°

ELEV 31

7R

076.7°

895 X 50

5423 X 150

256.7°

25L

ELEV 53

0.4% UP

L-4

34L

ELEV 44

CONTROL TOWER

34R

ELEV 33

0.3% UP

301.5°

HOT[5]

HOT[6]

HOT[7]

ELEV 26

30

RWY 7L-25R
S30, D70, ST89, DT110
RWY 7R-25L
S30, D75, ST95
RWY 12-30
S30, D200, ST175, DT300
RWYS 16L-34R and 16R-34L
S12.5

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

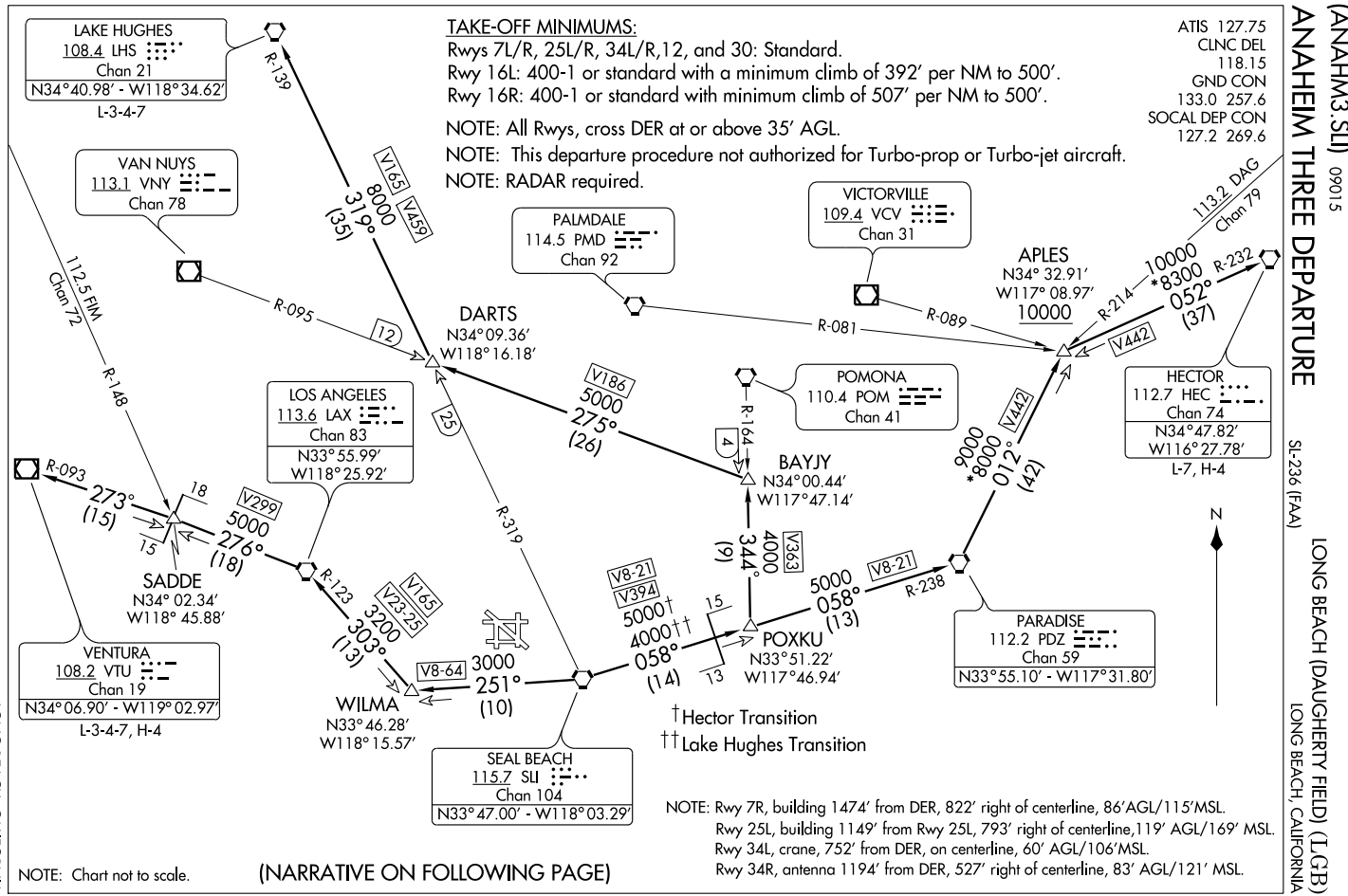
118°10′W

504

118°09′W

33°48′N

SW-3, 14 JAN 2010 to 11 FEB 2010


ANAHEIM THREE DEPARTURE (ANAHM3.SLI) 09015
LONG BEACH (DAUGHERTY FIELD) (LGB)
LONG BEACH, CALIFORNIA
SL-236 (FAA)
TAKE-OFF MINIMUMS:
Rwys 7L/R, 25L/R, 34L/R,12, and 30: Standard.
Rwy 16L: 400-1 or standard with a minimum climb of 392' per NM to 500'.
Rwy 16R: 400-1 or standard with minimum climb of 507' per NM to 500'.
NOTE: All Rwys, cross DER at or above 35' AGL.
NOTE: This departure procedure not authorized for Turbo-prop or Turbo-jet aircraft.
NOTE: RADAR required.
ATIS 127.75
CLNC DEL 118.15
GND CON 133.0 257.6
SOCAL DEP CON 127.2 269.6
LAKE HUGHES
108.4 LHS
Chan 21
N34°40.98' - W118°34.62'
L-3-4-7
VAN NUYS
113.1 VNY
Chan 78
PALMDALE
114.5 PMD
Chan 92
VICTORVILLE
109.4 VCV
Chan 31
APLES
N34° 32.91'
W117° 08.97'
10000
DARTS
N34°09.36'
W118°16.18'
POMONA
110.4 POM
Chan 41
HECTOR
112.7 HEC
Chan 74
N34°47.82'
W116°27.78'
L-7, H-4
LOS ANGELES
113.6 LAX
Chan 83
N33°55.99'
W118°25.92'
BAYJY
N34°00.44'
W117°47.14'
SADDE
N34° 02.34'
W118° 45.88'
PARADISE
112.2 PDZ
Chan 59
N33°55.10' - W117°31.80'
VENTURA
108.2 VTU
Chan 19
N34°06.90' - W119°02.97'
L-3-4-7, H-4
POXKU
N33°51.22'
W117°46.94'
WILMA
N33°46.28'
W118°15.57'
SEAL BEACH
115.7 SLI
Chan 104
N33°47.00' - W118°03.29'
†Hector Transition
††Lake Hughes Transition
NOTE: Rwy 7R, building 1474' from DER, 822' right of centerline, 86'AGL/115'MSL.
Rwy 25L, building 1149' from Rwy 25L, 793' right of centerline,119' AGL/169' MSL.
Rwy 34L, crane, 752' from DER, on centerline, 60' AGL/106'MSL.
Rwy 34R, antenna 1194' from DER, 527' right of centerline, 83' AGL/121' MSL.
NOTE: Chart not to scale.
(NARRATIVE ON FOLLOWING PAGE)
N

DEPARTURE ROUTE DESCRIPTION

HECTOR or LAKE HUGHES TRANSITION: Climb runway heading to 800′ then fly assigned heading for radar vectors to SLI VORTAC. Thence. . . .

VENTURA TRANSITION: Climb runway heading to 800′ then fly assigned heading for radar vectors to LAX VORTAC. Thence. . . .

. . . .via (transition) or (assigned route). Maintain assigned altitude. Expect clearance to filed altitude 10 minutes after departure.

HECTOR TRANSITION (ANAHM3.HEC): From over SLI VORTAC via SLI R-058 and PDZ R-238 to PDZ VORTAC, then via PDZ R-012 and HEC R-232 to HEC VORTAC.

LAKE HUGHES TRANSITION (ANAHM3.LHS): From over SLI VORTAC via SLI R-058 and PDZ R-238 to POXKU INT, then via POM R-164 to BAYJY INT, then via VNY R-095 to DARTS INT. Thence via SLI R-319 and LHS R-139 to LHS VORTAC.

VENTURA TRANSITION (ANAHM3.VTU): From over SLI VORTAC via SLI R-251 to WILMA INT, then via LAX R-123 to LAX VORTAC, then via LAX R-276 and VTU R-093 to VTU VOR/DME.

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC I-LGB	APP CRS	Rwy Idg	8000
110.3	301°	TDZE	38
		Apt Elev	60

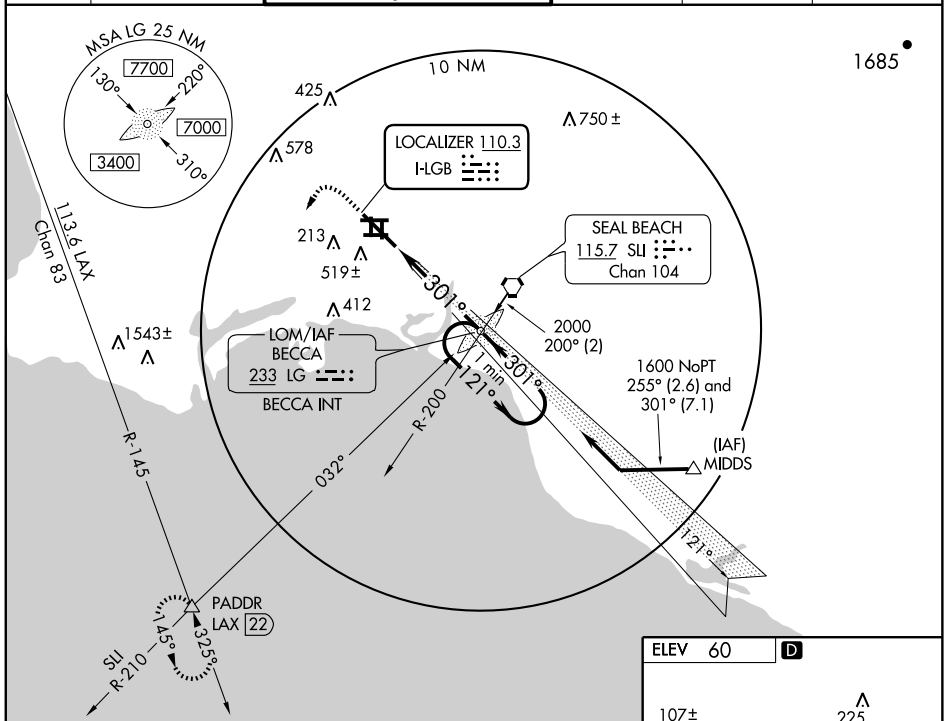
ILS or LOC RWY 30

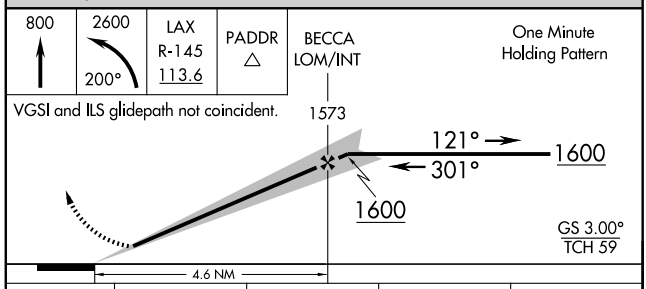
LONG BEACH (DAUGHERTY FIELD) (LGB)

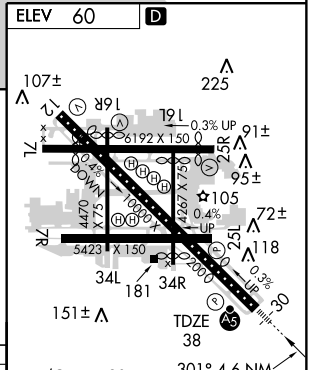
MALSR

MISSED APPROACH: Climb to 800 then climbing left turn to 2600 via heading 200° and LAX R-145 to PADDR INT/LAX 22 DME and hold.

ATIS	SOCAL APP CON	LONG BEACH TOWER★	GND CON	CLNC DEL	UNICOM
127.75	124.65 316.125	120.5 257.6 (Rwy 12) 119.4 (CTAF) L 257.6 (Rwy 30)	133.0 257.6	118.15	122.95







CATEGORY	A	B	C	D
S-ILS 30	250/18 212 (200-½)			
S-LOC 30	520/24 482 (500-½)		520/40 482 (500-¾)	520/50 482 (500-1)
CIRCLING	880-1 820 (900-1)	880-1¼ 820 (900-1¼)	880-2½ 820 (900-2½)	880-2¾ 820 (900-2¾)

TDZ/CL Rwy 30
MIRL Rwy 7L-25R
REIL Rwys 12, 25L, and 25R
HIRL Rwys 7R-25L and 12-30

FAF to MAP 4.6 NM

Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

SW-3, 14 JAN 2010 to 11 FEB 2010

KAYOH FOUR ARRIVAL

SOCAL APP CON
133.85 346.35
FULLERTON MUNI ATIS
125.05
LONG BEACH ATIS
127.75
ORANGE COUNTY ATIS
126.0
TORRANCE MUNI ATIS
125.6

HECTOR TRANSITION (HEC.KAYOH4): From over HEC VORTAC via HEC R-211 and PDZ R-030 to DAWNA INT, then via HDF R-353 to HDF VOR then via HDF R-257 and SLI R-075 to KAYOH INT. Thence....

PALM SPRINGS TRANSITION (PSP.KAYOH4): From over PSP VORTAC via PSP R-260 to BANDS INT, then via HDF R-054 to HDF VOR, then via HDF R-257 and SLI R-075 to KAYOH INT. Thence....

....From over KAYOH INT via SLI R-075 to SLI VORTAC.

Expect radar vectors to final approach course.

HECTOR
112.7 HEC
Chan 74
N34°47.82′
W116°27.78′
L-7, H-4

V8-21-283-587
10,500
211°
(46)

31
44

DAWNA
N34°15.90′-W117°06.78′
VERTICAL NAVIGATION PLANNING INFORMATION
Turbojet: Expect clearance to cross at 13,000′.
Non-Turbojet: Expect clearance to cross at 12,000′.

PARADISE
112.2 PDZ
Chan 59

29

R-030

V283-587
10,500
173°
(29)

POMONA
110.4 POM
Chan 41

KAYOH
N33°46.82′
W117°35.41′
VERTICAL NAVIGATION PLANNING INFORMATION
210K

FULLERTON MUNI

LONG BEACH (DAUGHERTY FIELD)

R-164

R-185

R-154

R-353

V283-372

8000
257°
(16)

19

24

(5)

23

6000
255°
(9)

R-075 4000
(14)

ZAMPERINI FIELD

LOS ALAMITOS AAF

JOGIT
N33°46.91′
W117°46.85′

JOHN WAYNE ARPT-ORANGE COUNTY

DEJAY
N33°46.77′
W117°29.86′

VERTICAL NAVIGATION PLANNING INFORMATION
Expect to cross at or above 8000′.

HOMELAND
113.4 HDF
N33°46.58′-W117°11.12′

R-054

V372
8000
234°
(18)

13,000
260°
(21)

V16-370-372

BANDS
N33°53.38′-W116°50.97′
VERTICAL NAVIGATION PLANNING INFORMATION
Expect clearance to cross at 14,000′.

R-021

SEAL BEACH
115.7 SLI
Chan 104
N33°47.00′-W118°03.29′

PALM SPRINGS
115.5 PSP
Chan 102
N33°52.20′-W116°25.79′
L-4, H-4

OCEANSIDE
115.3 OCN
Chan 100

N

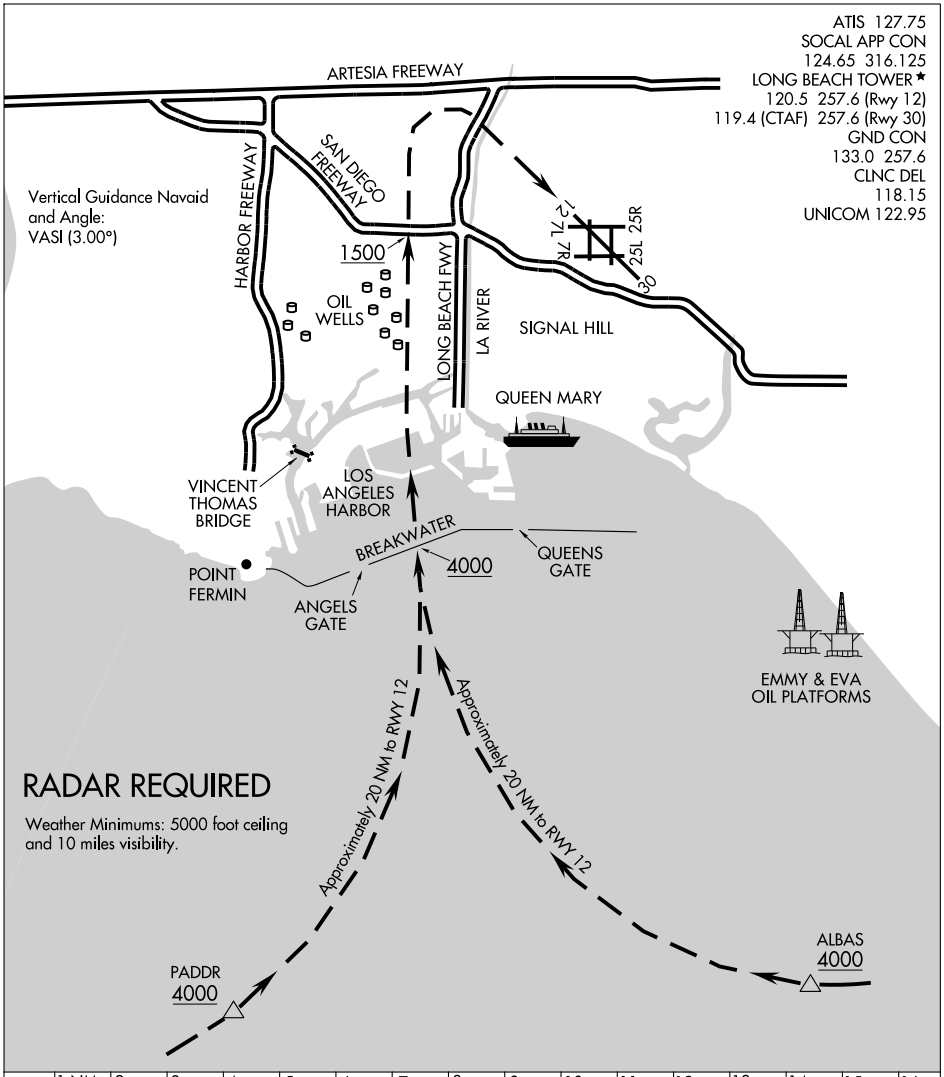
NOTE: Chart not to scale.

LA RIVER VISUAL RWY 12

AL-236 (FAA)

LONG BEACH (DAUGHERTY FIELD) (LGB)
LONG BEACH, CALIFORNIA

ATIS 127.75
SOCAL APP CON
124.65 316.125
LONG BEACH TOWER ★
120.5 257.6 (Rwy 12)
119.4 (CTAF) 257.6 (Rwy 30)
GND CON
133.0 257.6
CLNC DEL
118.15
UNICOM 122.95



PROCEDURE NOT AUTHORIZED AT NIGHT.

WAAS CH 90120 W30A	APP CRS 301°	Rwy Idg 8000 TDZE 38 Apt Elev 60

RNAV (GPS) Z RWY 30

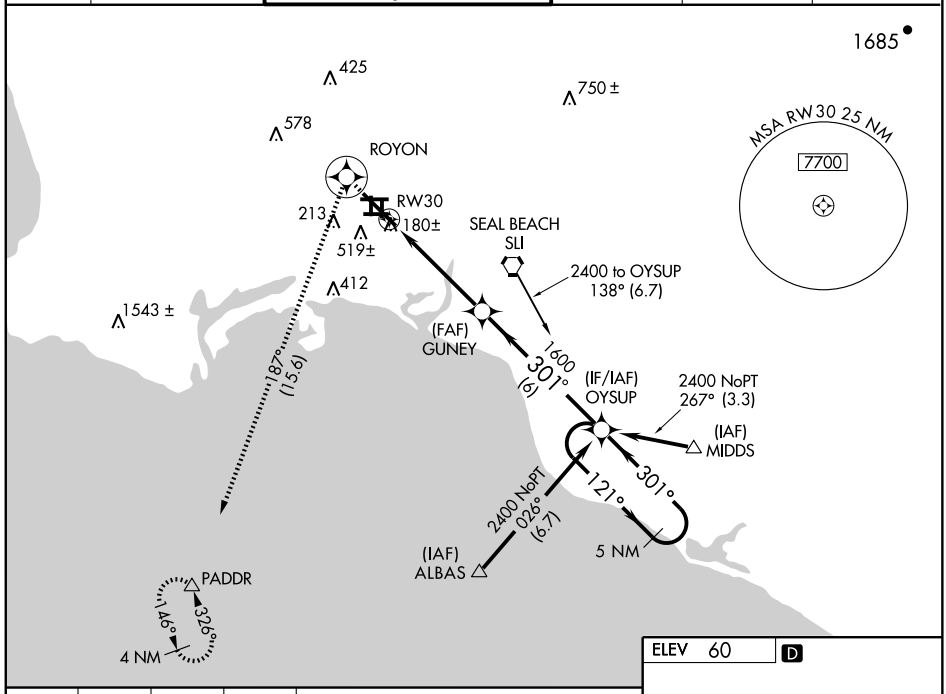
LONG BEACH (DAUGHERTY FIELD) (LGB)

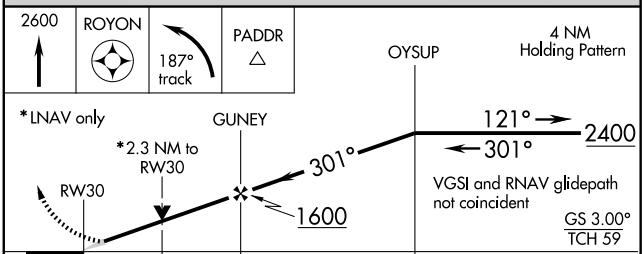
TAW Baro-VNAV NA below -15°C (5°F).
DME/DME RNP- 0.3 NA.

MALSR (A5)

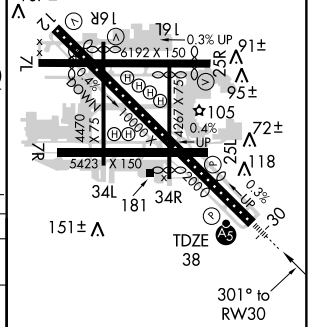
MISSED APPROACH: Climb to 2600 direct ROYON and left turn via 187° track to PADDR and hold.

ATIS	SOCAL APP CON	LONG BEACH TOWER★	GND CON	CLNC DEL	UNICOM
127.75	124.65 316.125	120.5 257.6 (Rwy 12) 119.4 (CTAF) L 257.6 (Rwy 30)	133.0 257.6	118.15	122.95





CATEGORY	A	B	C	D
LPV DA	290/24 252 (300-½)			
LNAV/VNAV DA	657-1¾ 619 (600-1¾)			
LNAV MDA	820/24 782 (800-½)	820/40 782 (800-¾)	820-1¾ 782 (800-1¾)	820-2 782 (800-2)
CIRCLING	880-2¼ 820 (900-2¼)		880-2½ 820 (900-2½)	880-2¾ 820 (900-2¾)



TDZ/CL Rwy 30
MIRL Rwys 7L-25R
REIL Rwys 12, 25L, and 25R
HIRL Rwys 7R-25L and 12-30

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	8650
121°	TDZE	53
	Apt Elev	60

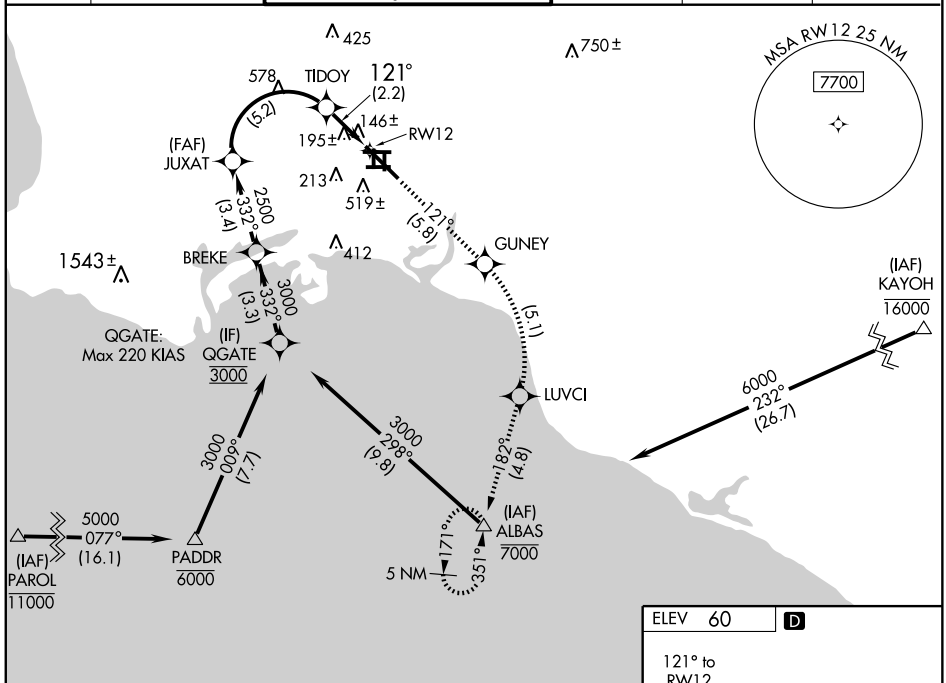
RNAV (RNP) RWY 12

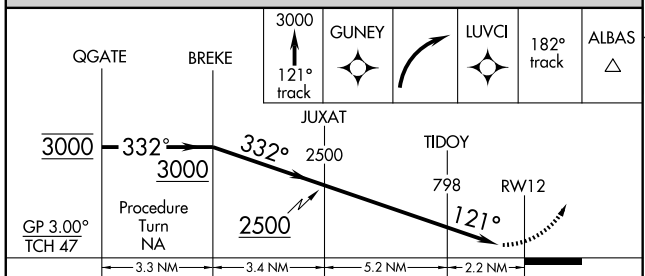
LONG BEACH (DAUGHERTY FIELD) (LGB)

RF and GPS required.
Procedure NA when control tower closed.
For uncompensated Baro-VNAV systems, procedure NA below 3°C (37°F) or above 49°C (121°F).
Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 3000 via 121° track to GUNEY, right radius turn to LUVCI, 182° track to ALBAS and hold.

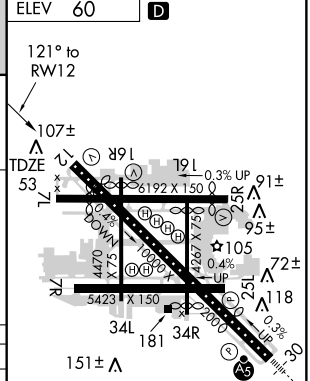
ATIS	SOCAL APP CON	LONG BEACH TOWER★	GND CON	CLNC DEL	UNICOM
127.75	124.65 316.125	120.5 257.6 (Rwy 12) 119.4 (CTAF) L 257.6 (Rwy 30)	133.0 257.6	118.15	122.95





CATEGORY	A	B	C	D
RNP 0.13 DA	371-1 318 (400-1)			
RNP 0.19 DA	388-1¼ 335 (400-1¼)			
RNP 0.30 DA	478-1½ 425 (500-1½)			

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED



TDZ/CL Rwy 30
MIRL Rwy 7L-25R
REIL Rwys 12, 25L, and 25R
HIRL Rwys 7R-25L and 12-30

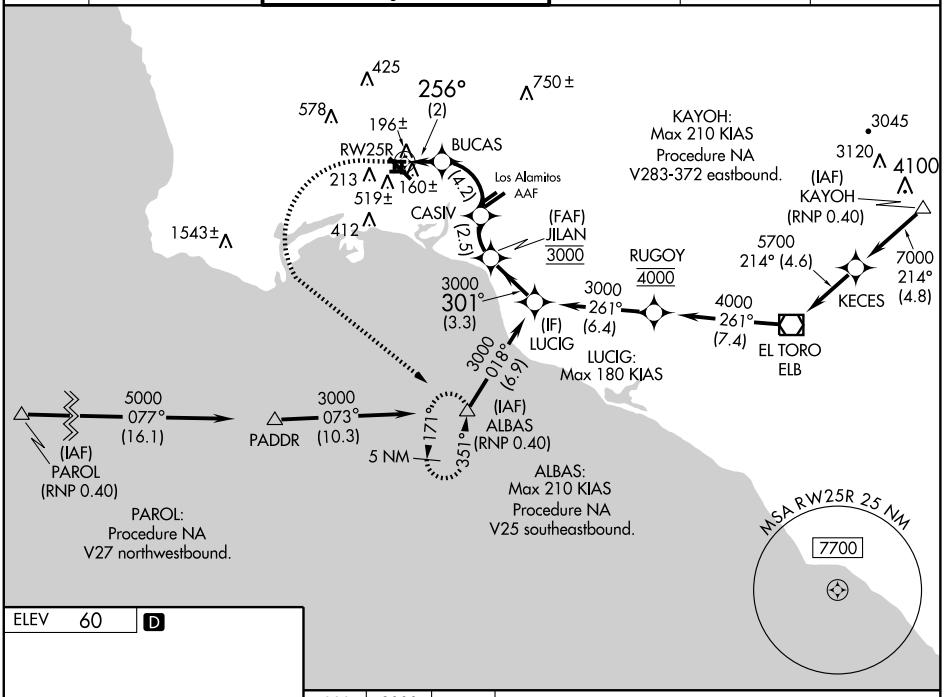
APP CRS	Rwy Idg	5661
256°	TDZE	48
	Apt Elev	60

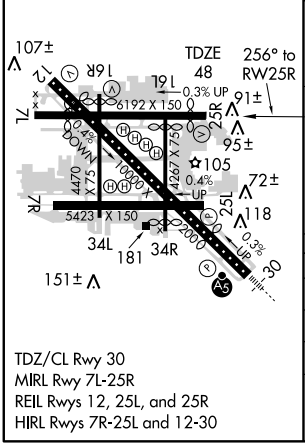
RNAV (RNP) RWY 25R
LONG BEACH (DAUGHERTY FIELD) (LGB)

RF and GPS required. Procedure NA when control tower closed. For uncompensated Baro-VNAV systems, procedure NA below 3°C (38°F) or above 39°C (102°F).
*NA at night. Visibility reduction by helicopters NA.
#Missed approach requires minimum climb of 370 feet per NM to 500.

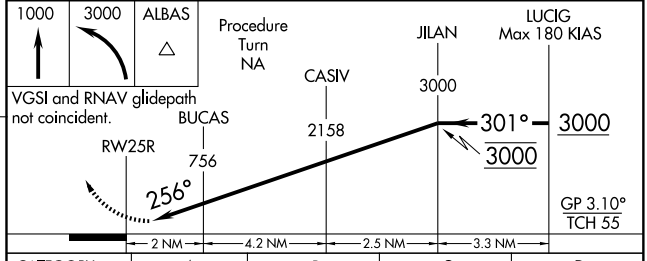
MISSED APPROACH: Climb to 1000, then climbing left turn to 3000 direct ALBAS and hold.

ATIS	SOCAL APP CON	LONG BEACH TOWER*	GND CON	CLNC DEL	UNICOM
127.75	124.65 316.125	120.5 257.6 (Rwy 12) 119.4 (CTAF) L 257.6 (Rwy 30)	133.0 257.6	118.15	122.95





TDZ/CL Rwy 30
MIRL Rwy 7L-25R
REIL Rwys 12, 25L, and 25R
HIRL Rwys 7R-25L and 12-30



CATEGORY	A	B	C	D
RNP 0.15 DA*#	352-1 304 (300-1)			
RNP 0.30 DA*	403-1¼ 355 (400-1¼)			
RNP 0.30 DA	460-1½ 412 (400-1½)			

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	8000
301°	TDZE	38
	Apt Elev	60

RNAV (RNP) Y RWY 30

LONG BEACH (DAUGHERTY FIELD) (LGB)

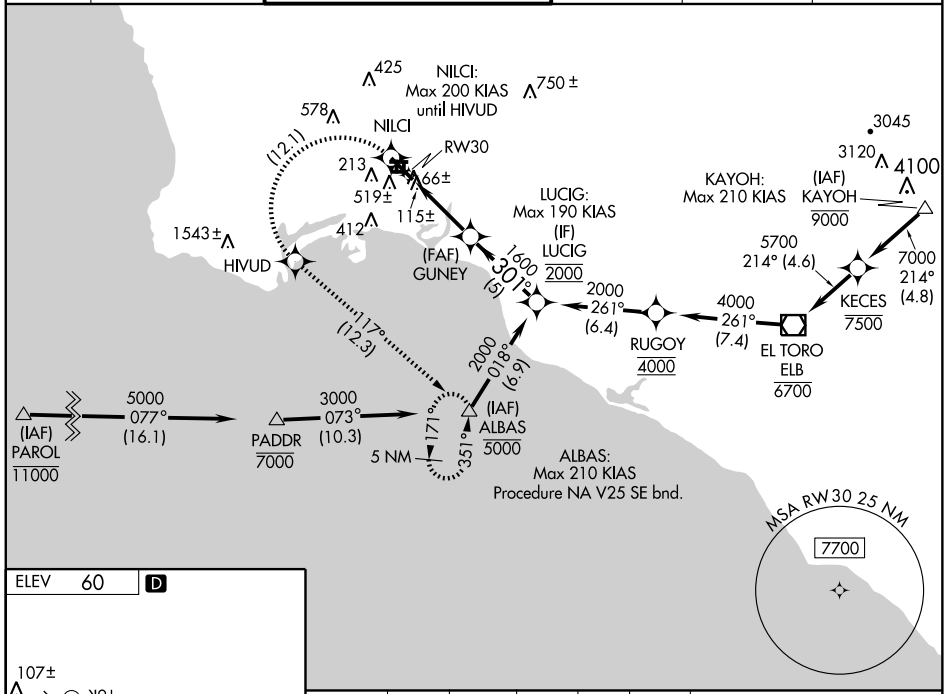
NA

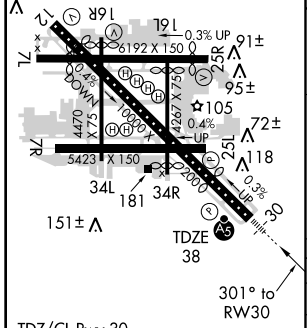
RF and GPS required. Procedure NA when control tower closed.
For uncompensated Baro-VNAV systems, procedure NA below 3° C (37° F) or above 48° C (119° F).
Missed approach requires RNP less than 1.0.
For inoperative MALSR, increase RNP 0.13 visibility to RVR 5000, and RNP 0.30 visibility to RVR 6000.
* When VGSI inoperative, procedure NA at night.

MALSR

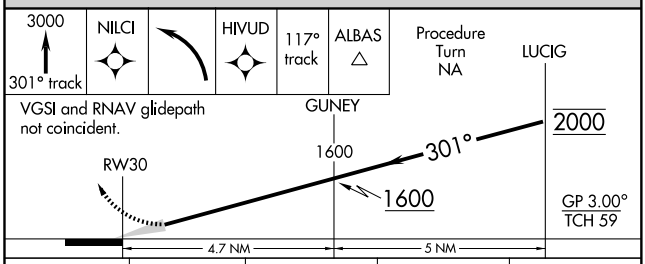
MISSED APPROACH: Climb to 3000 via 301° track to NILCI, left radius turn to HIVUD, 117° track to ALBAS and hold.

ATIS	SOCAL APP CON	LONG BEACH TOWER*	GND CON	CLNC DEL	UNICOM
127.75	124.65 316.125	120.5 257.6 (Rwy 12) 119.4 (CTAF) L 257.6 (Rwy 30)	133.0 257.6	118.15	122.95





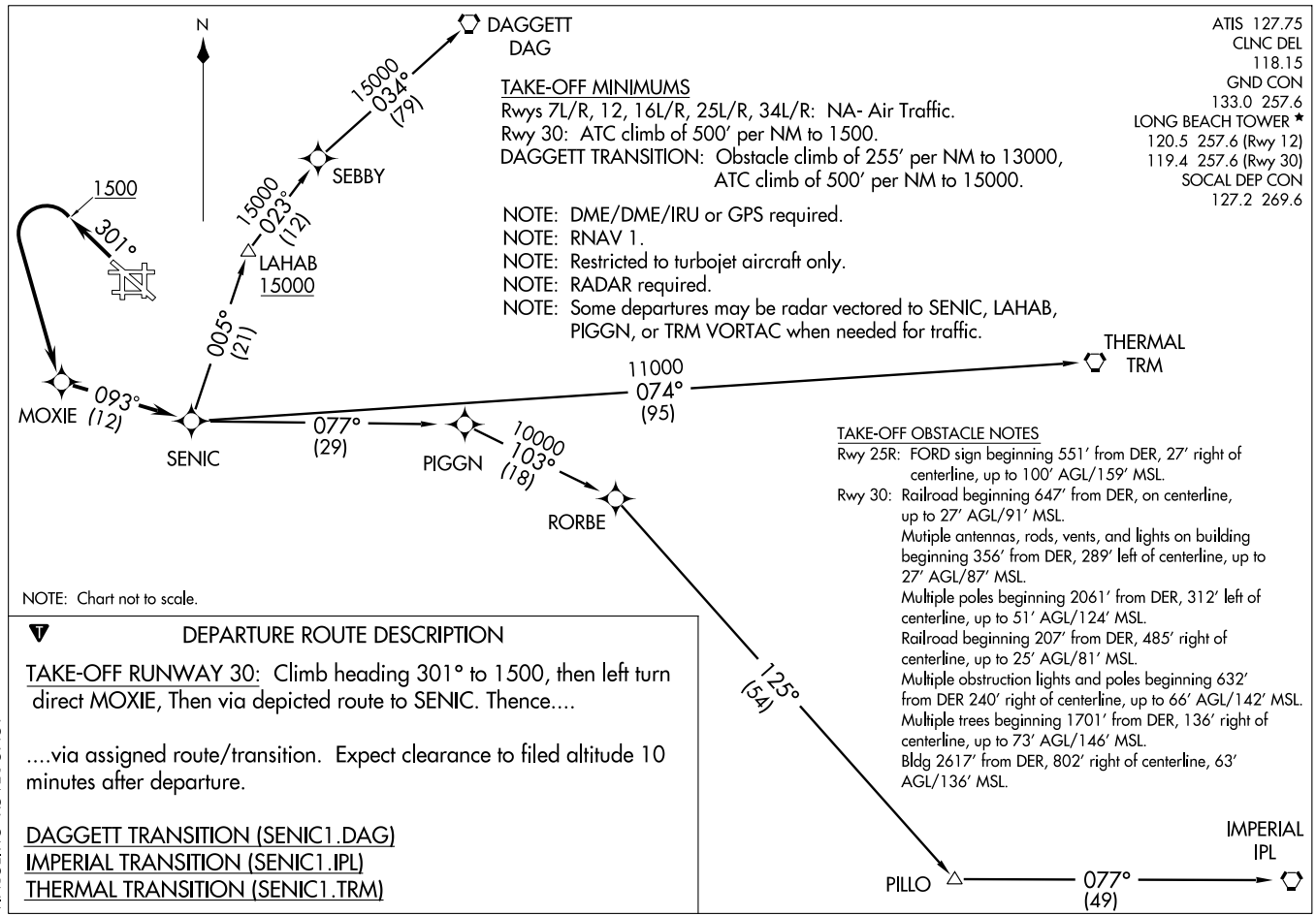
TDZ/CL Rwy 30
MIRL Rwy 7L-25R
REIL Rwys 12, 25L, and 25R
HIRL Rwys 7R-25L and 12-30



CATEGORY	A	B	C	D
RNP 0.13 DA	358/40 320 (300-¾)			
RNP 0.30 DA*	408/40 370 (400-¾)			

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

SW-3, 14 JAN 2010 to 11 FEB 2010

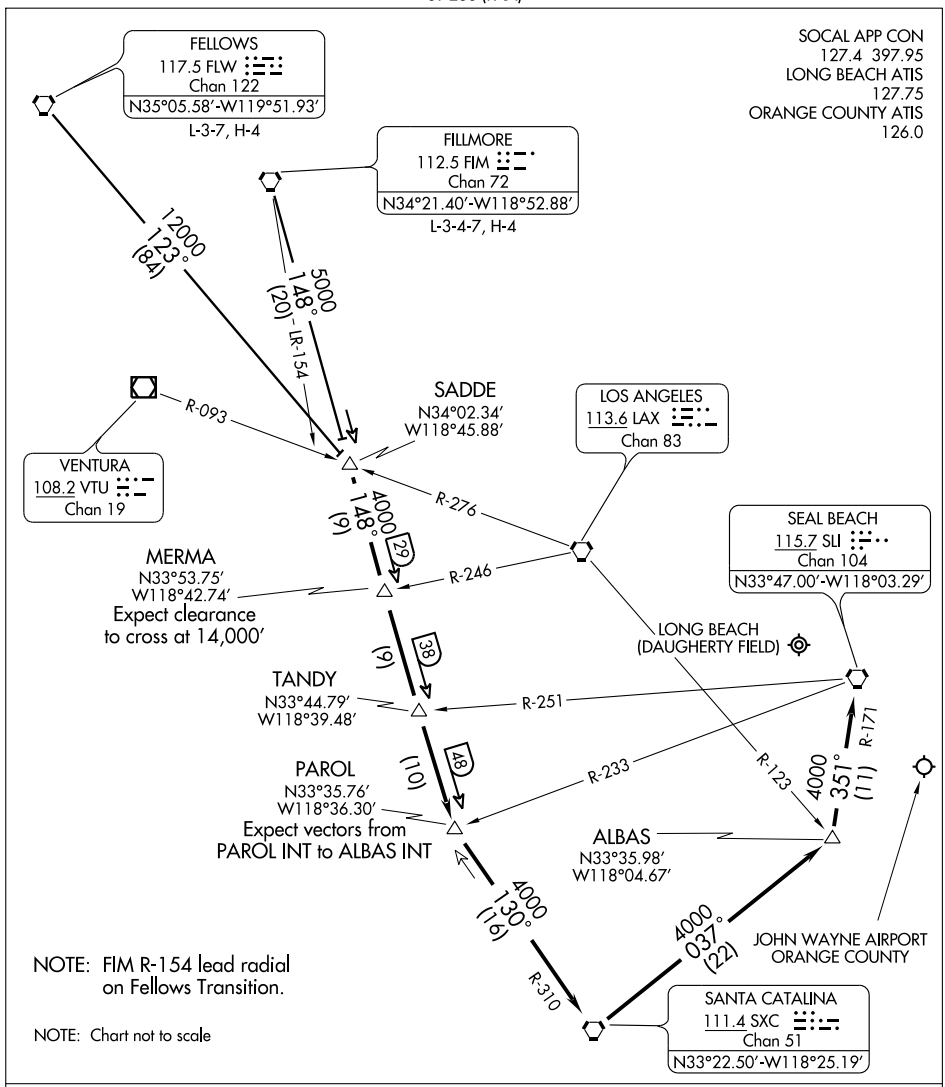


SENIC ONE DEPARTURE (RNAV) (SENIC1.SENIC) 07354

LONG BEACH (DAUGHERTY FIELD) (LGB)
LONG BEACH, CALIFORNIA

SL-236 (FAA)

TANDY THREE ARRIVAL



FELLOWS TRANSITION (FLW.TANDY3): From over FLW VORTAC via FLW R-123 to SADDE INT. Thence....

FILLMORE TRANSITION (FIM.TANDY3): From over FIM VORTAC via FIM R-148 to SADDE INT. Thence....

....From over SADDE INT via FIM R-148 to PAROL INT. From over PAROL INT via SXC R-310 to SXC VORTAC. Then from over SXC VORTAC via SXC R-037 and SLI R-171 to SLI VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC SLI	APP CRS	Rwy Idg	8000
115.7	275°	TDZE	38
Chan 104		Apt Elev	60

VOR or TACAN RWY 30

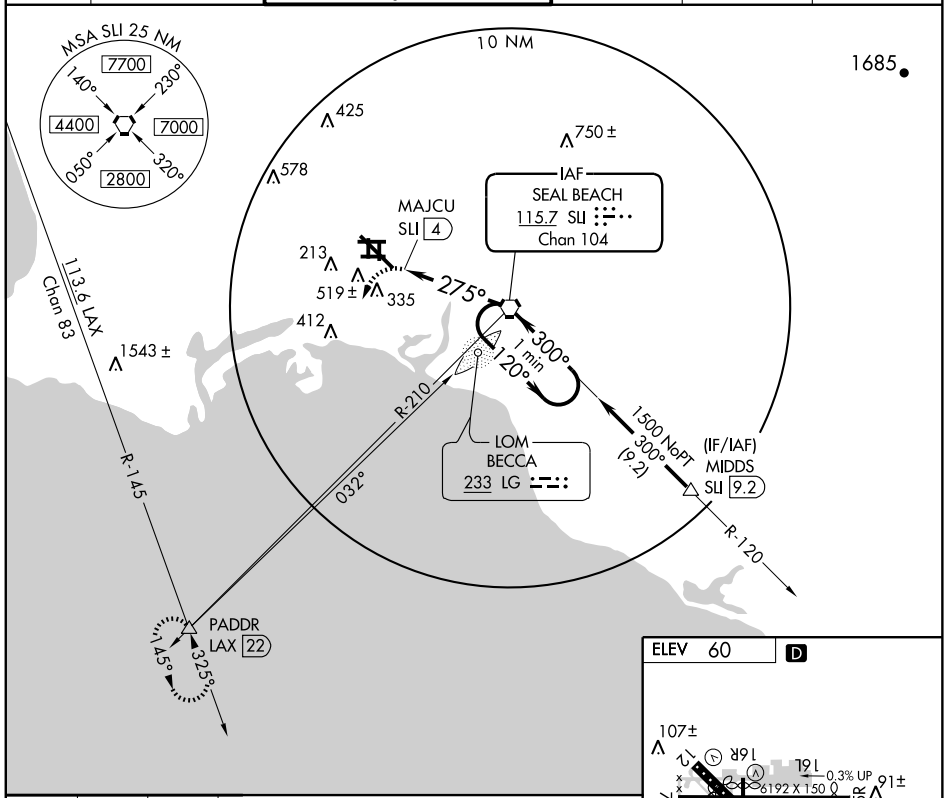
LONG BEACH (DAUGHERTY FIELD) (LGB)

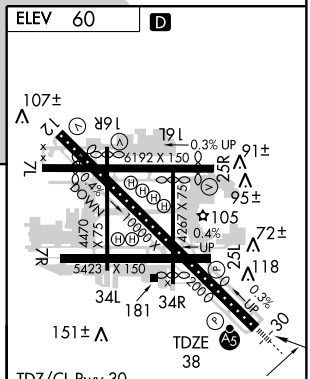
Inoperative table does not apply.
Visibility reduction by helicopters NA.

MALSR

MISSED APPROACH: Climbing left turn to 2500 via heading 200° and LAX R-145 to PADDR Int/LAX 22 DME and hold.

ATIS	SOCAL APP CON	LONG BEACH TOWER★	GND CON	CLNC DEL	UNICOM
127.75	124.65 316.125	120.5 257.6 (Rwy 12) 119.4 (CTAF) L 257.6 (Rwy 30)	133.0 257.6	118.15	122.95

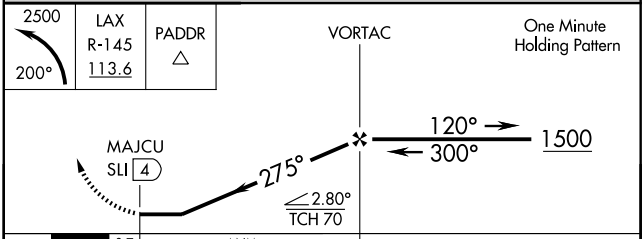




TDZ/CL Rwy 30
MIRL Rwy 7L-25R
REIL Rwys 12, 25L, and 25R
HIRL Rwys 7R-25L and 12-30

275° 4.7 NM from FAF

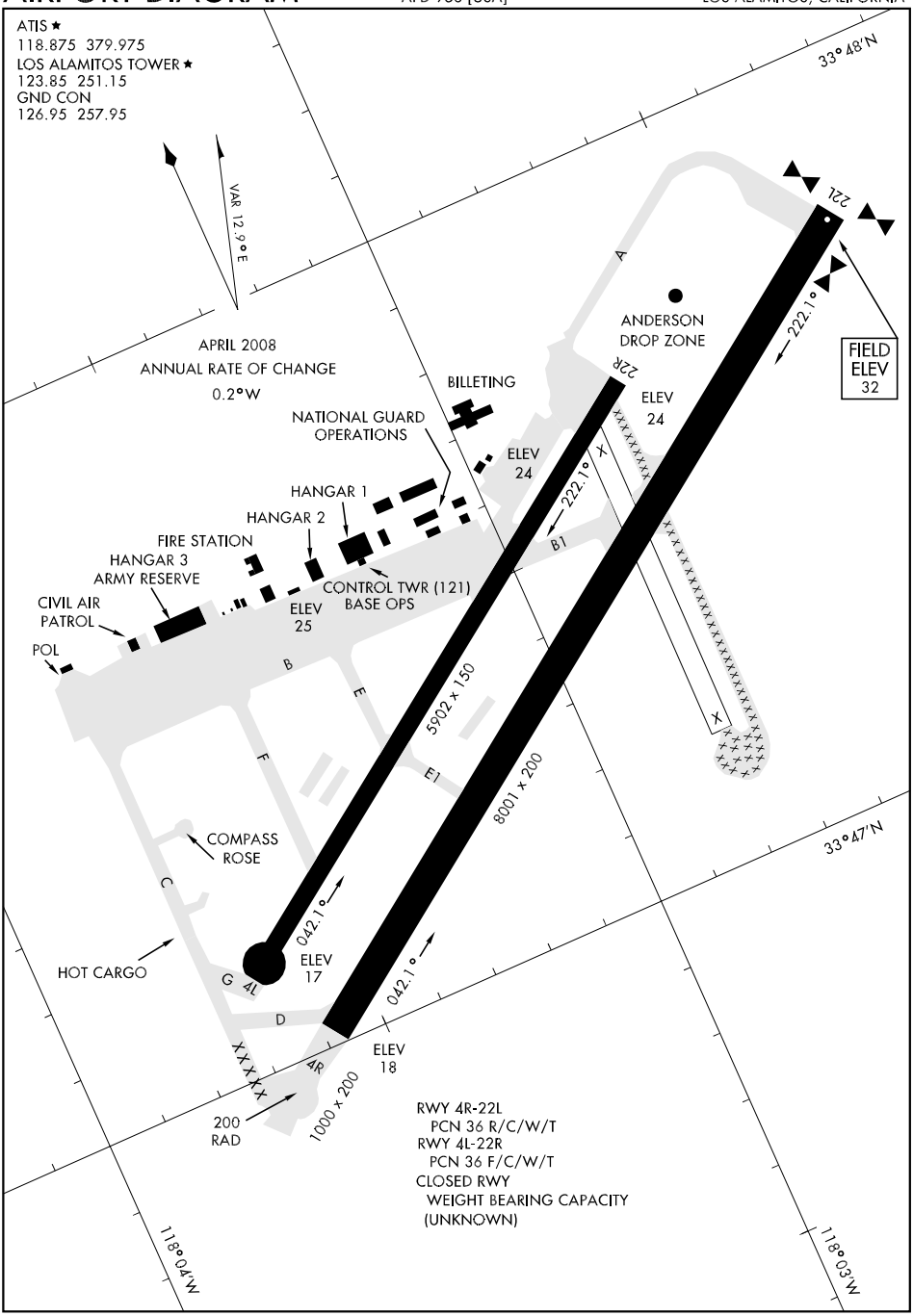
2500	LAX	PADDR
200°	R-145	△
	113.6	



CATEGORY	A	B	C	D
S-30	640/50 602 (600-1)		640-1¾ 602 (600-1¾)	640-2 602 (600-2)
CIRCLING	880-1 820 (900-1)	880-1¼ 820 (900-1¼)	880-2½ 820 (900-2½)	880-2¾ 820 (900-2¾)

FAF to MAP 4 NM					
Knots	60	90	120	150	180
Min:Sec	4:00	2:40	2:00	1:36	1:20

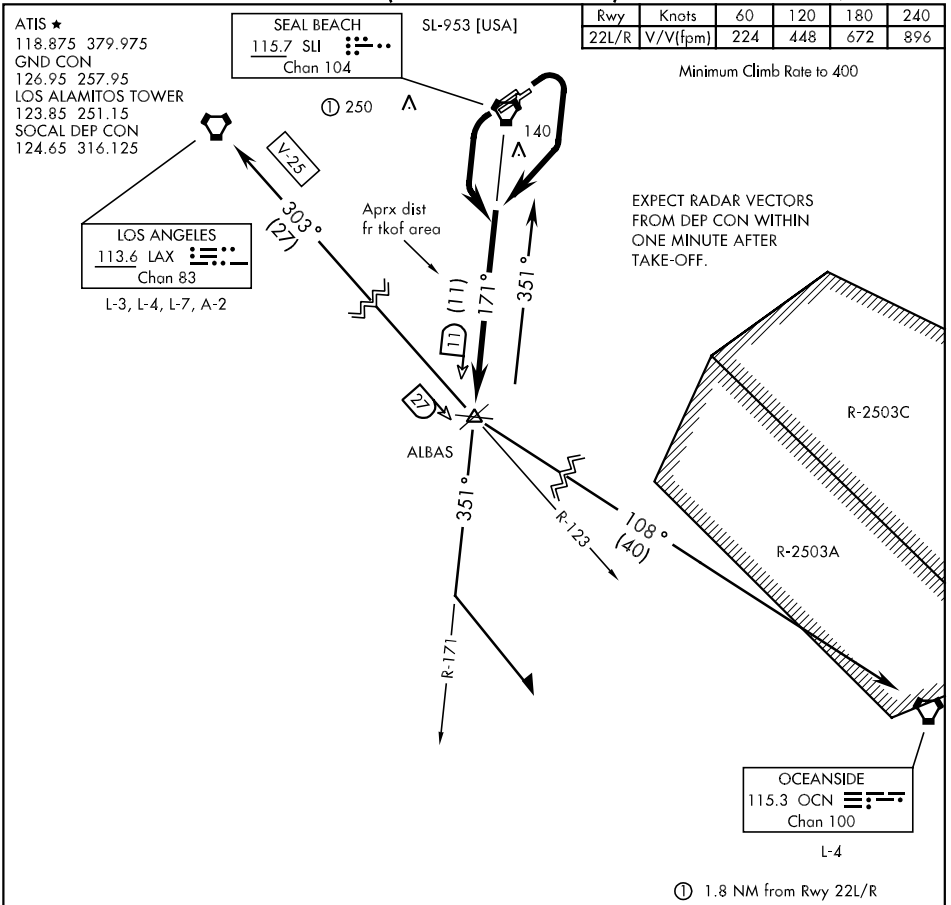
SW-3, 14 JAN 2010 to 11 FEB 2010



SW-3, 14 JAN 2010 to 11 FEB 2010

ALBACOR-TWO DEPARTURE (ALBAS 2•ALBAS)

LOS ALAMITOS, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 4L/R: Immediate climb to assigned alt. Maintain rwy hdg until passing 400′. Aircraft under VFR conditions maintain rwy hdg until end of rwy approach lights. Turn right hdg 180° for one minute. Thence ....

TAKE-OFF RWY 22L/R: Immediate climb to assigned altitude. Maintain rwy hdg until passing 400′. Aircraft under VFR conditions maintain rwy hdg until end of rwy. Turn left to hdg 180° for one minute. Thence ....

.... intercept and proceed via SLI R-171 to ALBAS INT. Cross ALBAS INT at as assigned, then via transition or assigned route.

LOS ANGELES TRANSITION: Via LAX R-123 to LAX (ALBAS 2•LAX).

OCEANSIDE TRANSITION: Via direct OCN (ALBAS 2•OCN).

SEAL BEACH TRANSITION: Procedure turn East of course, then inbound via SLI R-171 to SLI. (ALBAS 2•SLI).

ALBACOR-TWO DEPARTURE (ALBAS 2•ALBAS)

LOS ALAMITOS, CALIFORNIA

KAYOH FOUR ARRIVAL

SOCAL APP CON
133.85 346.35
FULLERTON MUNI ATIS
125.05
LONG BEACH ATIS
127.75
ORANGE COUNTY ATIS
126.0
TORRANCE MUNI ATIS
125.6

HECTOR TRANSITION (HEC.KAYOH4): From over HEC VORTAC via HEC R-211 and PDZ R-030 to DAWNA INT, then via HDF R-353 to HDF VOR then via HDF R-257 and SLI R-075 to KAYOH INT. Thence....

PALM SPRINGS TRANSITION (PSP.KAYOH4): From over PSP VORTAC via PSP R-260 to BANDS INT, then via HDF R-054 to HDF VOR, then via HDF R-257 and SLI R-075 to KAYOH INT. Thence....

....From over KAYOH INT via SLI R-075 to SLI VORTAC.

Expect radar vectors to final approach course.

HECTOR
112.7 HEC
Chan 74
N34°47.82′
W116°27.78′
L-7, H-4

V8-21-283-587
10,500
211°
(46)

31
44

DAWNA
N34°15.90′-W117°06.78′
VERTICAL NAVIGATION PLANNING INFORMATION
Turbojet: Expect clearance to cross at 13,000′.
Non-Turbojet: Expect clearance to cross at 12,000′.

PARADISE
112.2 PDZ
Chan 59

29

R-030

V283-587
10,500
173°
(29)

POMONA
110.4 POM
Chan 41

KAYOH
N33°46.82′
W117°35.41′
VERTICAL NAVIGATION PLANNING INFORMATION
210K

FULLERTON MUNI

LONG BEACH (DAUGHERTY FIELD)

R-164

R-185

R-154

R-353

V283-372

8000
257°
(16)

19

24

(5)

23

6000
255°
(9)

R-075 4000
(14)

ZAMPERINI FIELD

LOS ALAMITOS AAF

JOGIT
N33°46.91′
W117°46.85′

JOHN WAYNE ARPT-ORANGE COUNTY

DEJAY
N33°46.77′
W117°29.86′

VERTICAL NAVIGATION PLANNING INFORMATION
Expect to cross at or above 8000′.

HOMELAND
113.4 HDF
N33°46.58′-W117°11.12′

R-054

V372
8000
234°
(18)

13,000
260°
(21)

V16-370-372

BANDS
N33°53.38′-W116°50.97′
VERTICAL NAVIGATION PLANNING INFORMATION
Expect clearance to cross at 14,000′.

R-021

SEAL BEACH
115.7 SLI
Chan 104
N33°47.00′-W118°03.29′

PALM SPRINGS
115.5 PSP
Chan 102
N33°52.20′-W116°25.79′
L-4, H-4

OCEANSIDE
115.3 OCN
Chan 100

N

NOTE: Chart not to scale.

NDB RWY 22L

LOM LG	APCH CRS	Rwy ldg 8001 / TDZE 32 / Arpt Elev 32	AL-953 [USA]
233	206°		LOS ALAMITOS AAF (KSLI)

* When ALS inop, increase CAT D vis ¼ mile.
** Circling not authorized N of Rwy 4L-22R.
*** When ALS inop, increase CAT CD vis to 1 mile.
NA

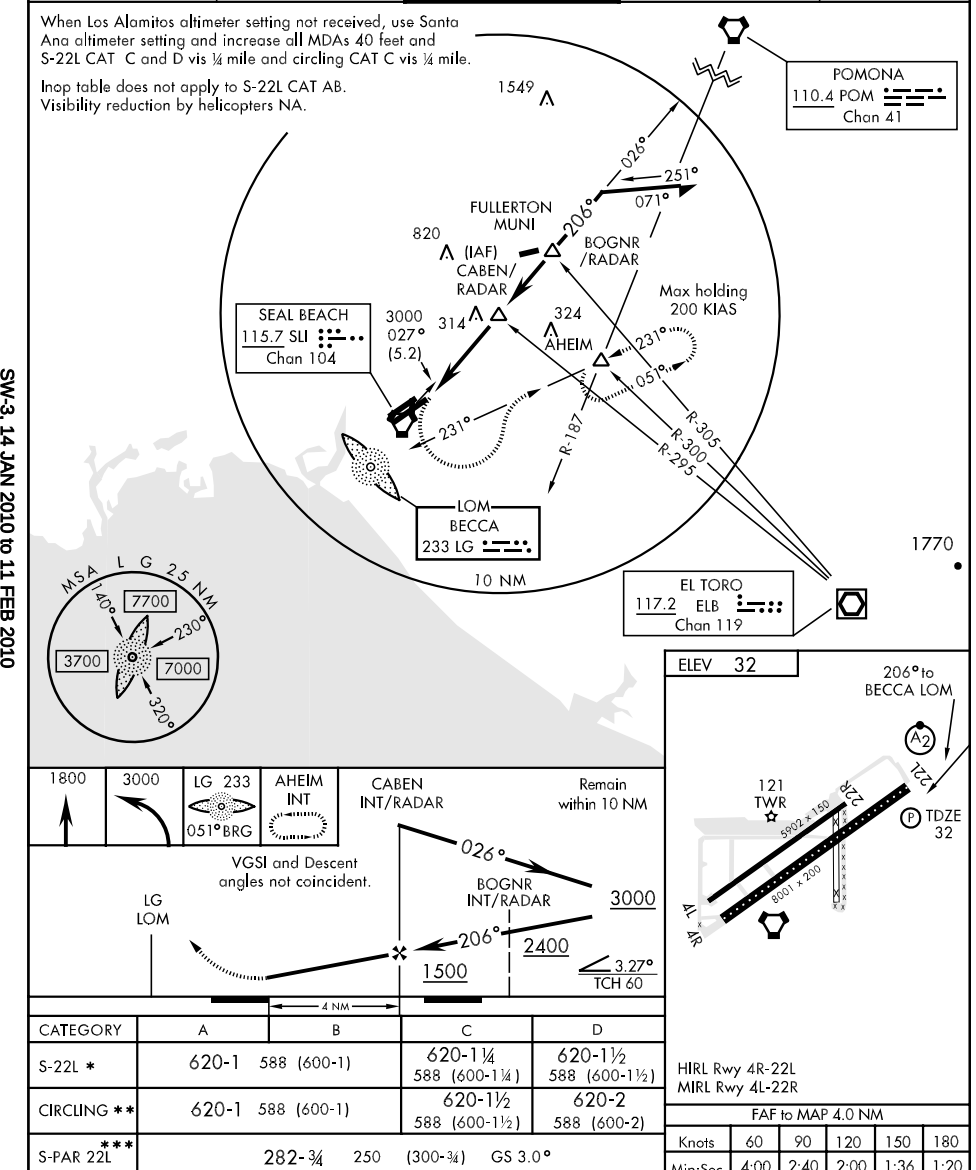
SALSF (A2)

MISSED APROACH: Climb to 1800 then climbing left turn to 3000 via BECCA LOM 051° bearing to AHEIM INT and hold.

ATIS ★	SOCAL APP CON	LOS ALAMITOS TOWER ★	GND CON	PAR
118.875 379.975	124.65 316.125	123.85 251.15	126.95 257.95	

When Los Alamitos altimeter setting not received, use Santa Ana altimeter setting and increase all MDAs 40 feet and S-22L CAT C and D vis ¼ mile and circling CAT C vis ¼ mile.

Inop table does not apply to S-22L CAT AB.
Visibility reduction by helicopters NA.



CATEGORY	A	B	C	D
S-22L *	620-1 588 (600-1)		620-1¼ 588 (600-1¼)	620-1½ 588 (600-1½)
CIRCLING **	620-1 588 (600-1)		620-1½ 588 (600-1½)	620-2 588 (600-2)
S-PAR 22L ***	282-¾ 250 (300-¾) GS 3.0°			

HIRL Rwy 4R-22L
MIRL Rwy 4L-22R

FAF to MAP 4.0 NM

Knots	60	90	120	150	180
Min:Sec	4:00	2:40	2:00	1:36	1:20

RNAV (GPS) RWY 22L

APCH CRS	Rwy ldg	8001
220°	TDZE	32
	Arpt Elev	32

AL-953 [USA]

LOS ALAMITOS AAF (KSLI)

▼ * When ALS inop, increase CAT D vis ¼ mile.
** Circling not authorized N of Rwy 4L-22R.
▲ NA *** When ALS inop, increase CAT CD vis to 1 mile.

SALSF

† MISSED APPROACH: Climbing left turn to 3200 direct AHEIM and hold.

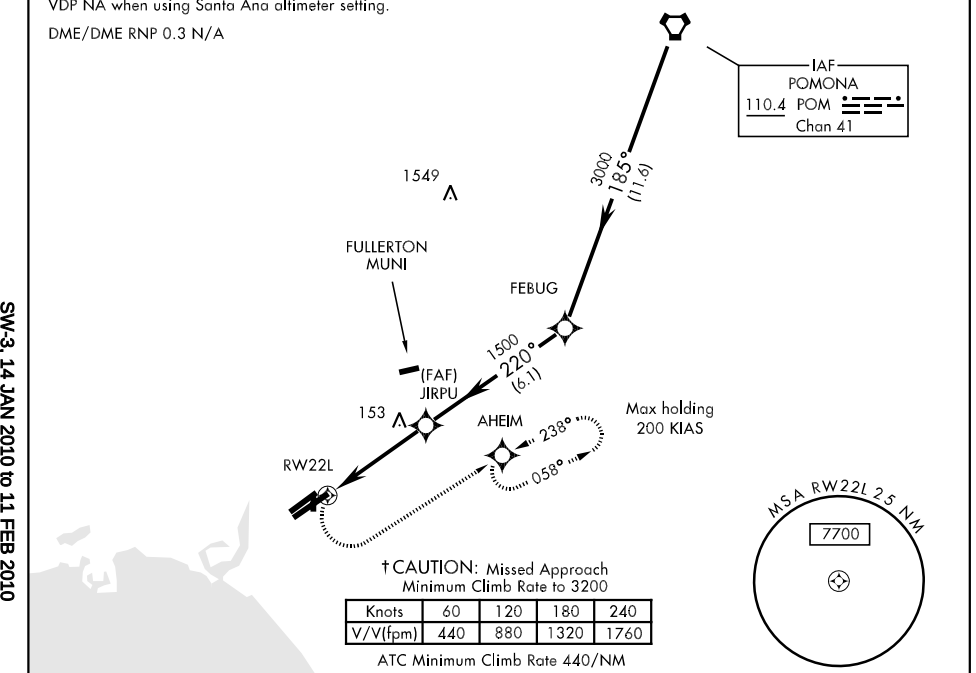
ATIS ★	SOCAL APP CON	LOS ALAMITOS TOWER ★	GND CON	PAR
118.875 379.975	124.65 316.125	123.85 251.15	126.95 257.95	

When Los Alamitos altimeter setting not available, use Santa Ana altimeter setting and increase MDAs 40'.

VDP NA when using Santa Ana altimeter setting.

DME/DME RNP 0.3 N/A

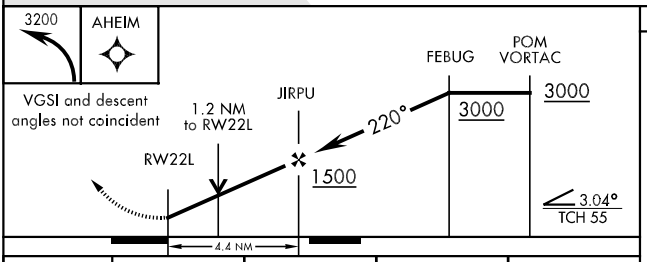
Procedure NA for arrivals at POM VORTAC on airway radials 164°CW 225°.

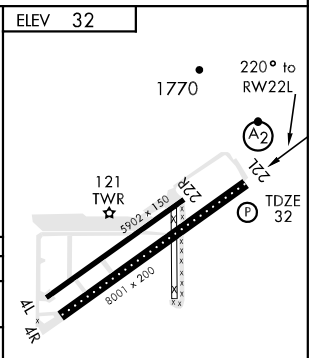


†CAUTION: Missed Approach Minimum Climb Rate to 3200

Knots	60	120	180	240
V/V(fpm)	440	880	1320	1760

ATC Minimum Climb Rate 440/NM





CATEGORY	A	B	C	D
LNAV/MDA*	480- ¾ 448 (500- ¾)		480-1 448 (500-1)	480-1¼ 448 (500-1¼)
CIRCLING **	480-1 448 (500-1)	500-1 468 (500-1)	500-1½ 468 (500-1½)	600-2 568 (600-2)
S-PAR 22L***	282- ¾ 250 (300- ¾) GS 3.0°			

HIRL Rwy 4R-22L
MIRL Rwy 4L-22R

SW-3, 14 JAN 2010 to 11 FEB 2010

VOR or TACAN RWY 22L

VORTAC SLI 115.7 Chan 104	APCH CRS 214°	Rwy ldg 8001 TDZE 32 Arpt Elev 32

AL-953 [USA]

LOS ALAMITOS AAF (KSLI)

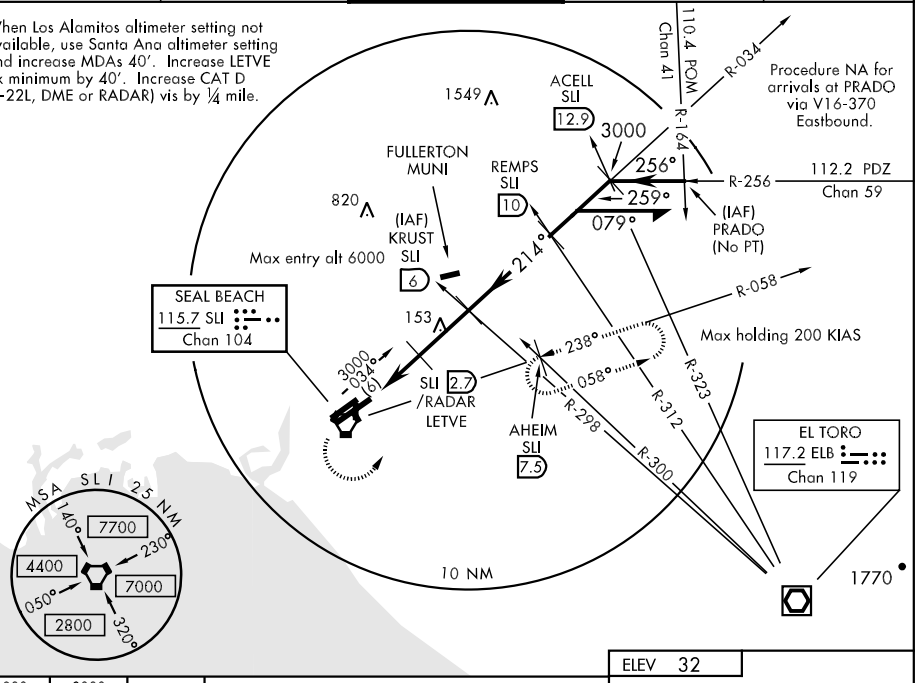
* When ALS inop, increase vis CAT D ¼ mile.
** When ALS inop, increase CAT CD vis to 1 mile.
*** Circling not authorized N of Rwy 4L-22R.

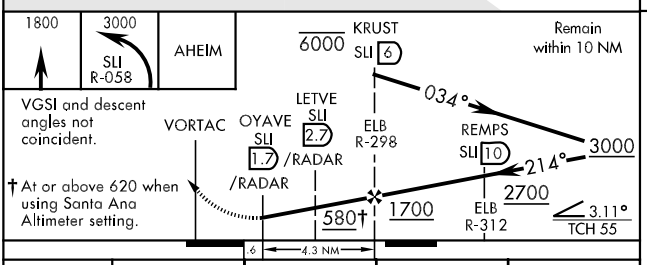
SALSF

MISSED APPROACH: Climb to 1800, then climbing left turn to 3000 via SLI VORTAC R-058 to AHEIM INT and hold.

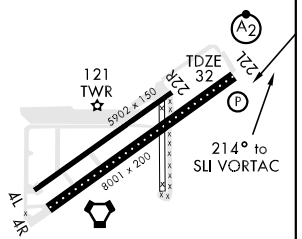
ATIS ★	SOCAL APP CON	LOS ALAMITOS TOWER ★	GND CON	PAR
118.875 379.975	124.65 316.125	123.85 251.15	126.95 257.95	

When Los Alamitos altimeter setting not available, use Santa Ana altimeter setting and increase MDAs 40'. Increase LETVE fix minimum by 40'. Increase CAT D (S-22L, DME or RADAR) vis by ¼ mile.





ELEV 32

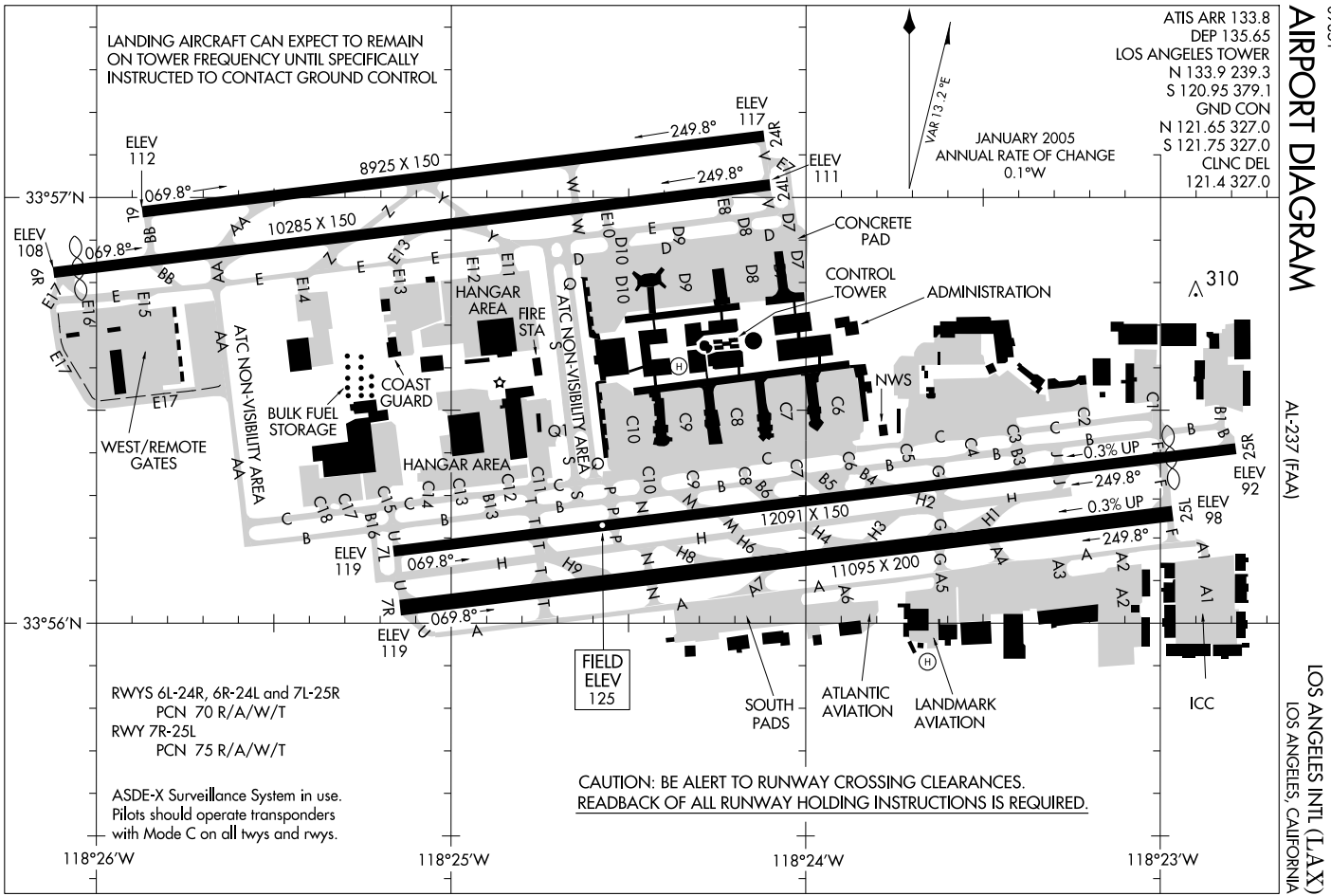


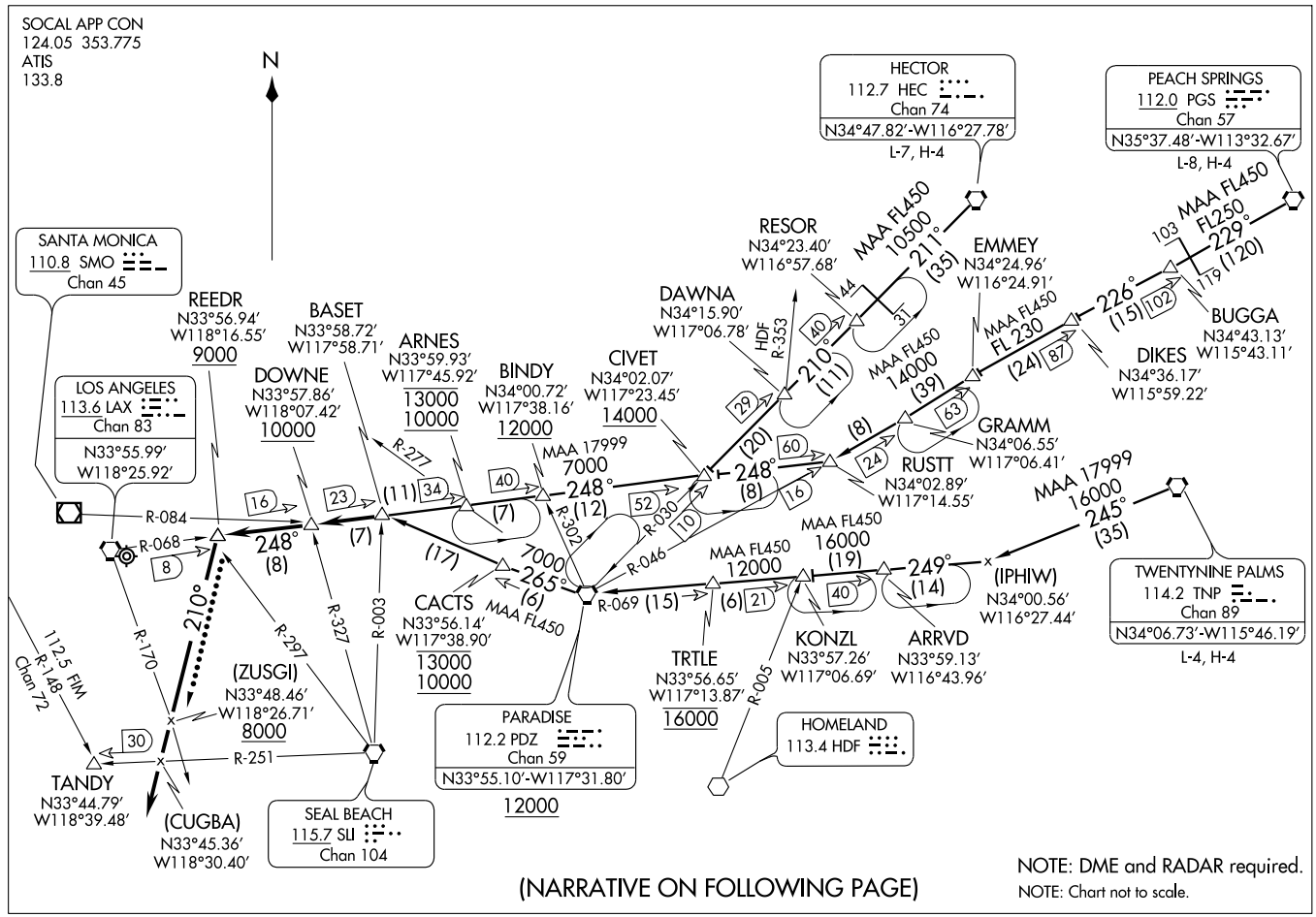
CATEGORY	A	B	C	D
S-22L	580-¾ 548 (600-¾)		580-1 ¼ 548 (600-1¼)	580-1½ 548 (600-1½)
CIRCLING***	580-1 548 (600-1)		580-1½ 548 (600-1½)	600-2 568 (600-2)
DME or RADAR				
S-22L*	440-¾ 408 (500-¾)		440-1 408 (500-1)	440-1¼ 408 (500-1¼)
CIRCLING***	440-1 408 (500-1)	500-1 468 (500-1)	500-1½ 468 (500-1½)	600-2 568 (600-2)
S-PAR 22L**	282-¾ 250 (300-¾) GS 3.0°			

HIRL Rwy 4R-22L
MIRL Rwy 4L-22R

FAF to MAP 4.3 NM

Knots	60	90	120	150	180
Min:Sec	4:18	2:52	2:09	1:43	1:26


AIRPORT DIAGRAM
AL-237 (FAA)
LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA
ATIS ARR 133.8
DEP 135.65
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
GND CON
N 121.65 327.0
S 121.75 327.0
CLNC DEL
121.4 327.0
LANDING AIRCRAFT CAN EXPECT TO REMAIN ON TOWER FREQUENCY UNTIL SPECIFICALLY INSTRUCTED TO CONTACT GROUND CONTROL
VAR 13.2°E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°W
ELEV 117
ELEV 112
ELEV 111
ELEV 108
ELEV 119
ELEV 119
ELEV 92
ELEV 98
249.8°
069.8°
8925 X 150
10285 X 150
12091 X 150
11095 X 200
0.3% UP
24R
24L
6R
6L
25R
25L
7L
7R
CONCRETE PAD
CONTROL TOWER
ADMINISTRATION
310
NWS
HANGAR AREA
FIRE STA
ATC NON-VISIBILITY AREA
COAST GUARD
BULK FUEL STORAGE
WEST/REMOTE GATES
HANGAR AREA
ATC NON-VISIBILITY AREA
33°57'N
33°56'N
118°26'W
118°25'W
118°24'W
118°23'W
FIELD ELEV 125
SOUTH PADS
ATLANTIC AVIATION
LANDMARK AVIATION
ICC
RWYS 6L-24R, 6R-24L and 7L-25R
PCN 70 R/A/W/T
RWY 7R-25L
PCN 75 R/A/W/T
ASDE-X Surveillance System in use.
Pilots should operate transponders with Mode C on all twys and rwys.
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.



(BASET.BASET3) 09351

BASET THREE ARRIVAL

ST-237 (FAA)

LOS ANGELES INTL
LOS ANGELES, CALIFORNIA

ARRIVAL DESCRIPTION

HECTOR TRANSITION (HEC.BASET3): From over HEC VORTAC via HEC R-211 and PDZ R-030 to CIVET INT, then via LAX R-068 to BASET INT. Thence....

PEACH SPRINGS TRANSITION (PGS.BASET3): From over PGS VORTAC via PGS R-229 and PDZ R-046 to RUSTT INT, then via LAX R-068 to BASET INT. Thence....

TWENTYNINE PALMS TRANSITION (TNP.BASET3): From over TNP VORTAC via TNP R-245 and PDZ R-069 to PDZ VORTAC, then via PDZ R-265 to BASET INT. Thence....

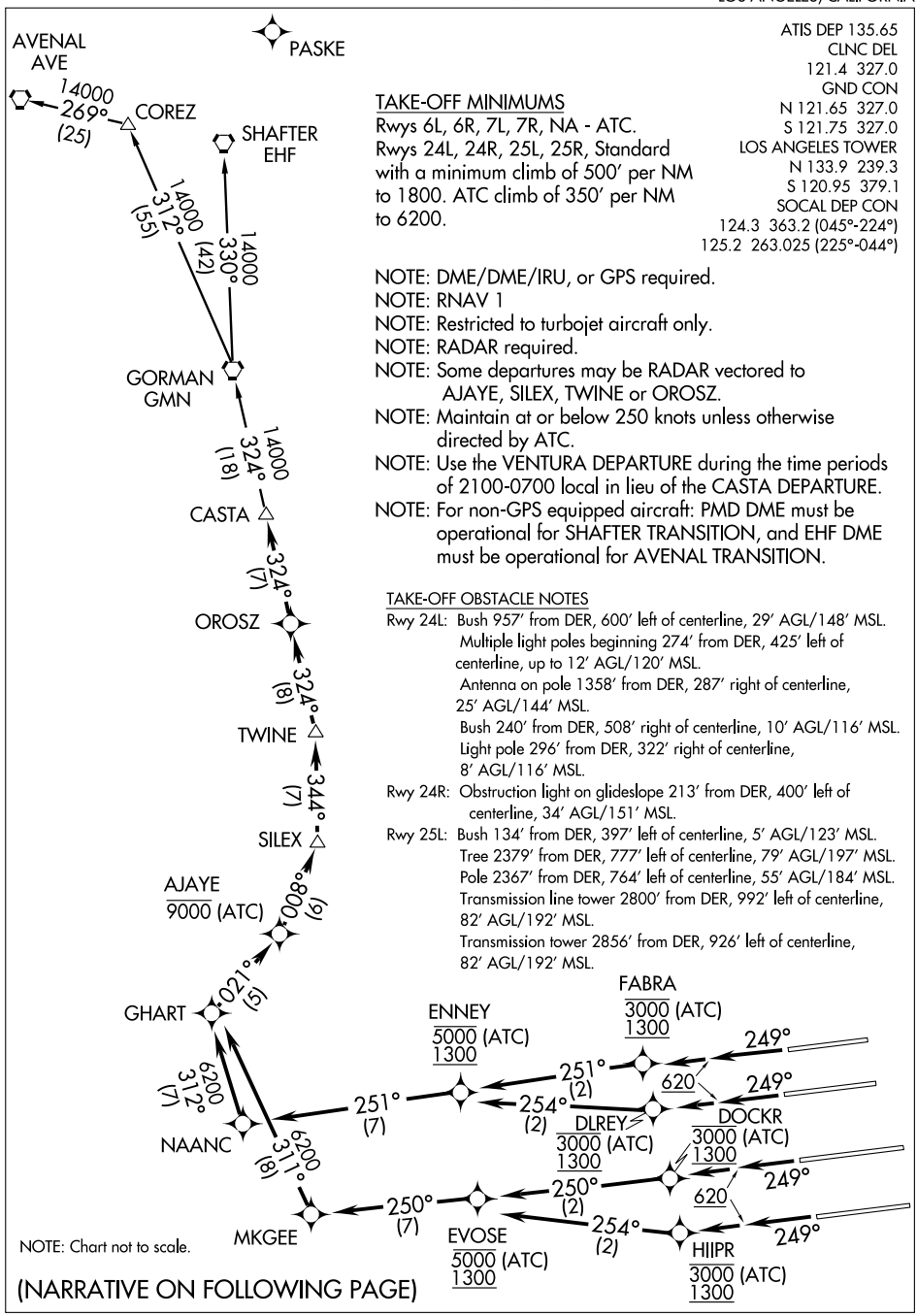
.... From over BASET INT/DME via LAX R-068 to cross DOWNE INT/DME at or above 10,000′ and cross REEDR INT/DME at or above 9,000′. Depart REEDR via heading 210° for radar vectors to final approach course for Runways 6L/R or 7L/R.

LOST COMMUNICATIONS: Depart REEDR heading 210° to intercept the SLI R-251 to TANDY INT/SLI 30 DME.

CASTA TWO DEPARTURE (RNAV)

SL-237 (FAA)

LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA



NOTE: Chart not to scale.

ATIS DEP 135.65
CLNC DEL
121.4 327.0
GND CON
N 121.65 327.0
S 121.75 327.0
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
SOCAL DEP CON
124.3 363.2 (045°-224°)
125.2 263.025 (225°-044°)

TAKE-OFF MINIMUMS

Rwys 6L, 6R, 7L, 7R, NA - ATC.
Rwys 24L, 24R, 25L, 25R, Standard with a minimum climb of 500′ per NM to 1800. ATC climb of 350′ per NM to 6200.

NOTE: DME/DME/IRU, or GPS required.
NOTE: RNAV 1
NOTE: Restricted to turbojet aircraft only.
NOTE: RADAR required.
NOTE: Some departures may be RADAR vectored to AJAYE, SILEX, TWINE or OROSZ.
NOTE: Maintain at or below 250 knots unless otherwise directed by ATC.
NOTE: Use the VENTURA DEPARTURE during the time periods of 2100-0700 local in lieu of the CASTA DEPARTURE.
NOTE: For non-GPS equipped aircraft: PMD DME must be operational for SHAFTER TRANSITION, and EHF DME must be operational for AVENAL TRANSITION.

TAKE-OFF OBSTACLE NOTES

Rwy 24L: Bush 957′ from DER, 600′ left of centerline, 29′ AGL/148′ MSL.
Multiple light poles beginning 274′ from DER, 425′ left of centerline, up to 12′ AGL/120′ MSL.
Antenna on pole 1358′ from DER, 287′ right of centerline, 25′ AGL/144′ MSL.
Bush 240′ from DER, 508′ right of centerline, 10′ AGL/116′ MSL.
Light pole 296′ from DER, 322′ right of centerline, 8′ AGL/116′ MSL.

Rwy 24R: Obstruction light on glideslope 213′ from DER, 400′ left of centerline, 34′ AGL/151′ MSL.

Rwy 25L: Bush 134′ from DER, 397′ left of centerline, 5′ AGL/123′ MSL.
Tree 2379′ from DER, 777′ left of centerline, 79′ AGL/197′ MSL.
Pole 2367′ from DER, 764′ left of centerline, 55′ AGL/184′ MSL.
Transmission line tower 2800′ from DER, 992′ left of centerline, 82′ AGL/192′ MSL.
Transmission tower 2856′ from DER, 926′ left of centerline, 82′ AGL/192′ MSL.

(NARRATIVE ON FOLLOWING PAGE)

SW-3, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 24R: Climb heading 249° to 620, then direct to cross FABRA at or below 3000/1300, then via track 251° to cross ENNEY at or below 5000/1300, then via depicted route to CASTA, thence....

TAKE-OFF RUNWAY 24L: Climb heading 249° to 620, then direct to cross DLREY at or below 3000/1300, then via track 254° to cross ENNEY at or below 5000/1300, then via depicted route to CASTA, thence....

TAKE-OFF RUNWAY 25R: Climb heading 249° to 620, then direct to cross DOCKR at or below 3000/1300, then via track 250° to cross EVOSE at or below 5000/1300, then via depicted route to CASTA, thence....

TAKE-OFF RUNWAY 25L: Climb heading 249° to 620, then direct to cross HIIPR at or below 3000/1300, then via track 254° to cross EVOSE at or below 5000/1300, then via depicted route to CASTA, thence....

....via transition. Expect further clearance to filed altitude three minutes after departure.

AVENAL TRANSITION (CASTA2.AVE)
GORMAN TRANSITION (CASTA2.GMN)
SHAFTER TRANSITION (CASTA2.EHF)

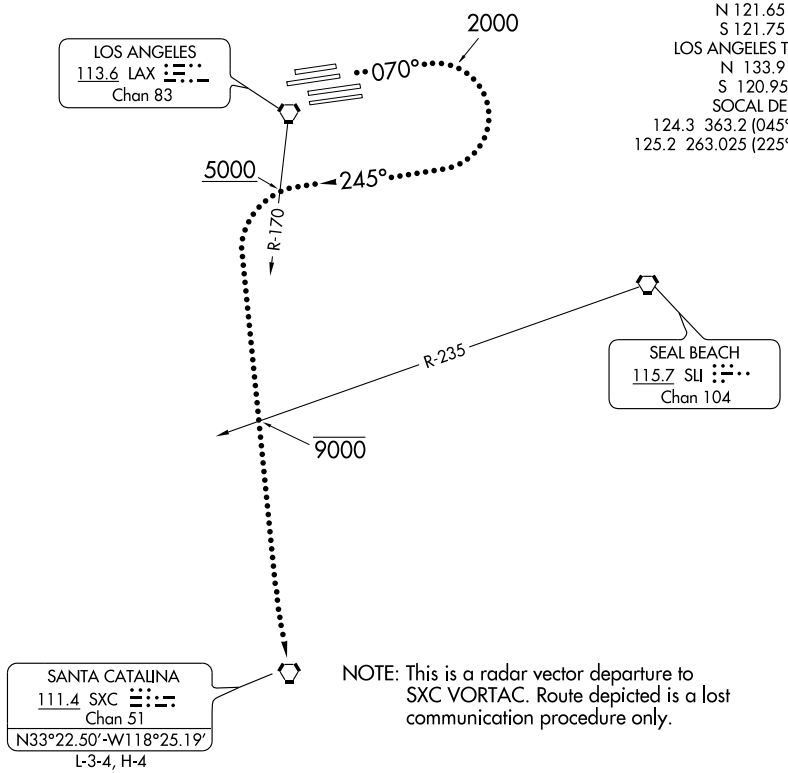
SW-3, 14 JAN 2010 to 11 FEB 2010

CATALINA FIVE DEPARTURE

SL-237 (FAA)

LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA

ATIS DEP 135.65
CLNC DEL
121.4 327.0
GND CON
N 121.65 327.0
S 121.75 327.0
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
SOCAL DEP CON
124.3 363.2 (045°-224°)
125.2 263.025 (225°-044°)



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 6/7: Climb via heading 070° for vector to SXC VORTAC. Then via (assigned route). All aircraft expect further clearance to filed altitude three minutes after departure.

LOST COMMUNICATIONS

Take-off Runways 6/7: If not in contact with Departure Control after reaching 2000', turn right heading 245°. Cross LAX R-170 at or above 5000', then turn left proceed direct SXC VORTAC. Cross SLI R-235 at or below 9000'.

CHATY TWO DEPARTURE

ATIS DEP 135.65
CLNC DEL
121.4 327.0
GND CON
N 121.65 327.0
S 121.75 327.0
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
SOCAL DEP CON
124.3 363.2 (045°-224°)
125.2 263.025 (225°-044°)

GORMAN
116.1 GMN
Chan 108
N34°48.24'-W118°51.68'
L-3-4-7, H-4

SAN MARCUS
114.9 RZS
Chan 96
N34°30.57'-W119°46.26'
L-3-4-7, H-4

FILLMORE
112.5 FIM
Chan 72
N34°21.40'
W118°52.88'

CASTA
N34°31.97'
W118°43.60'
8300

DEANO
N34°19.00'
W119°24.99'

HENER
N34°19.86'
W119°13.66'
L-3-4-7

(IPFOV)
N34°15.55'
W118°35.50'

GAVIOTA
113.8 GVO
Chan 85

KWANG
N34°18.55'
W119°30.85'
L-3-4-7

VAN NUYS
113.1 VNY
Chan 78

CHATY
N34°14.54'
W118°35.00'
5400

VENTURA
108.2 VTU
Chan 19

LOS ANGELES
113.6 LAX
Chan 83

R-142
322° (18)
V23
R-021
9500
323° (18)
V23
6000
323°
(1)
R-100
R-269
20
270°
V23
R-323
040°
7
070°
7
R-109
V25-186
6000
289° (21)
R-119
R-099
V27-186
(5)
32
27
(9)
22
R-289
R-282
V186
6000
250° (17)
R-311
R-097
V186-597
6000
277° (16)
20
36
N

NOTE: DME required.

NOTE: Runway 6L/R take-off minimums 400/2 or standard with a minimum climb of 330 feet per NM to 1500 feet.

NOTE: Procedure for non turbojet aircraft only.

NOTE: Expect clearance to filed altitude 3 minutes after departure.

NOTE: Chart not to scale.

(Continued on next page)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 6L/R: Climb via heading 040° for vector to V23; thence via (transition) or (assigned route).

TAKE-OFF RUNWAYS 7L/R: Climb via heading 070° for vector to V23; thence via (transition) or (assigned route).

LOST COMMUNICATIONS

RUNWAYS 6L/R and 7L/R: If no transmissions are received upon reaching the LAX 7 DME, turn left heading 270°, intercept V23 to CHATY INT and resume the CHATY TWO DEPARTURE. Continue climb on course.

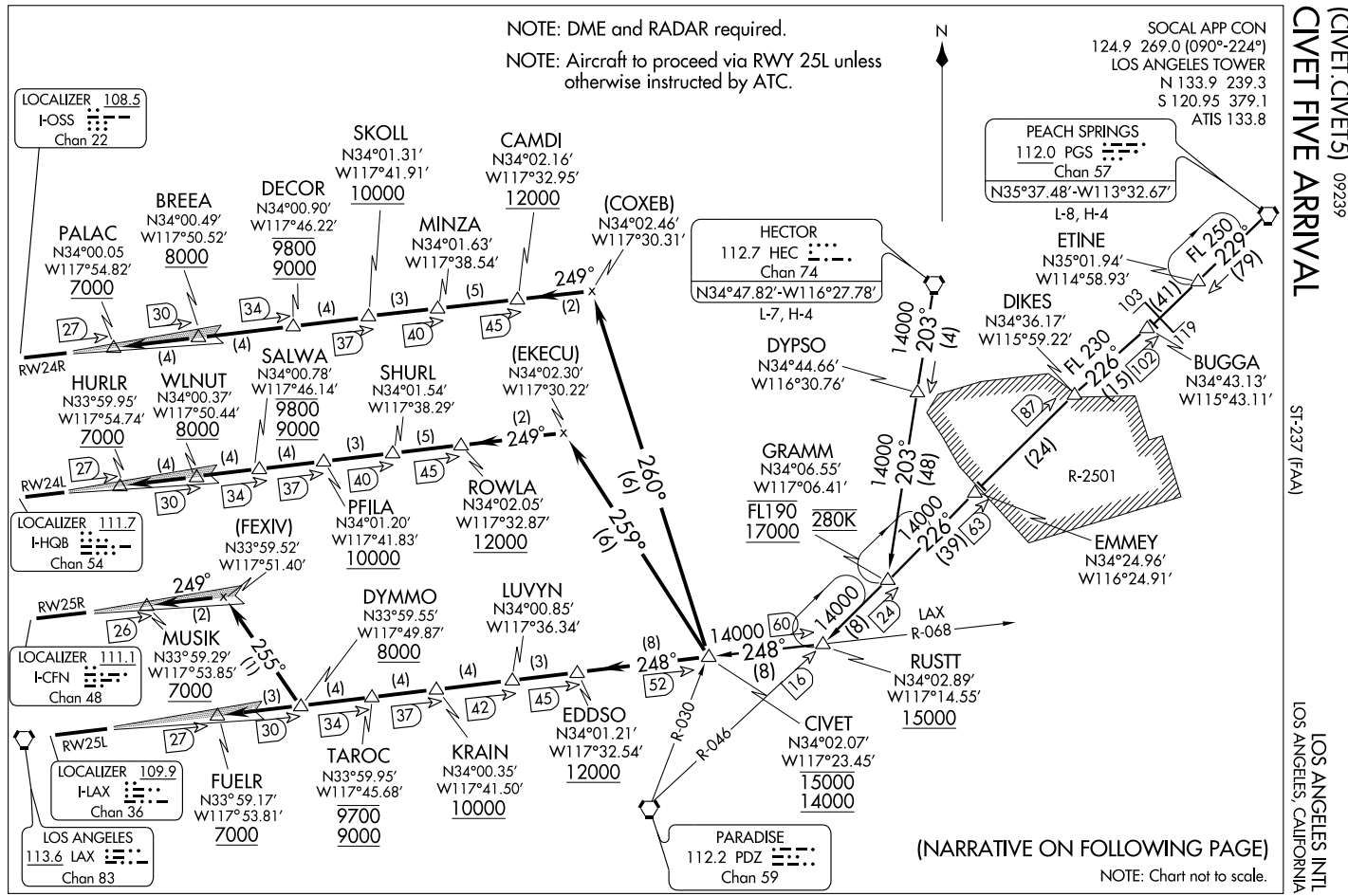
GORMAN TRANSITION (CHATY2.GMN): From over CHATY INT via V23 to GMN VORTAC. Cross CHATY INT at or above 5400′, and CASTA INT at or above 8300′.

HENER TRANSITION (CHATY2.HENER): From over CHATY INT via V23 and FIM R-097 to FIM VORTAC. Cross CHATY INT at or above 5400′. Then proceed via FIM R-250 to HENER INT.

KWANG TRANSITION (CHATY2.KWANG): From over CHATY INT via V23 and FIM R-097 to FIM VORTAC. Cross CHATY INT at or above 5400′. Then proceed via FIM R-250 to KWANG INT.

SAN MARCUS TRANSITION (CHATY2.RZS): From over CHATY INT via V23 and FIM R-097 to FIM VORTAC. Cross CHATY INT at or above 5400′. Then proceed via FIM R-250 and RZS R-109 to RZS VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010


NOTE: DME and RADAR required.
NOTE: Aircraft to proceed via RWY 25L unless otherwise instructed by ATC.
N
SOCAL APP CON
124.9 269.0 (090°-224°)
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
ATIS 133.8
CIVET FIVE ARRIVAL
(CIVET.CIVET5) 09239
ST-237 (FAA)
LOS ANGELES INTL
LOS ANGELES, CALIFORNIA
LOCALIZER 108.5
I-OSS
Chan 22
PALAC
N34°00.05
W117°54.82′
7000
BREEA
N34°00.49′
W117°50.52′
8000
DECOR
N34°00.90′
W117°46.22′
9800
9000
SKOLL
N34°01.31′
W117°41.91′
10000
MINZA
N34°01.63′
W117°38.54′
CAMDI
N34°02.16′
W117°32.95′
12000
(COXEB)
N34°02.46′
W117°30.31′
RW24R
HURLR
N33°59.95′
W117°54.74′
7000
WLNUT
N34°00.37′
W117°50.44′
8000
SALWA
N34°00.78′
W117°46.14′
9800
9000
SHURL
N34°01.54′
W117°38.29′
(EKECU)
N34°02.30′
W117°30.22′
RW24L
LOCALIZER 111.7
I-HQB
Chan 54
PFILA
N34°01.20′
W117°41.83′
10000
ROWLA
N34°02.05′
W117°32.87′
12000
(FEXIV)
N33°59.52′
W117°51.40′
RW25R
LOCALIZER 111.1
I-CFN
Chan 48
MUSIK
N33°59.29′
W117°53.85′
7000
DYMMO
N33°59.55′
W117°49.87′
8000
LUVYN
N34°00.85′
W117°36.34′
RW25L
LOCALIZER 109.9
I-LAX
Chan 36
FUELR
N33°59.17′
W117°53.81′
7000
TAROC
N33°59.95′
W117°45.68′
9700
9000
KRAIN
N34°00.35′
W117°41.50′
10000
EDDSO
N34°01.21′
W117°32.54′
12000
LOS ANGELES
113.6 LAX
Chan 83
HECTOR
112.7 HEC
Chan 74
N34°47.82′-W116°27.78′
L-7, H-4
DYPSO
N34°44.66′
W116°30.76′
GRAMM
N34°06.55′
W117°06.41′
FL190
17000
280K
CIVET
N34°02.07′
W117°23.45′
15000
14000
RUSTT
N34°02.89′
W117°14.55′
15000
PEACH SPRINGS
112.0 PGS
Chan 57
N35°37.48′-W113°32.67′
L-8, H-4
ETINE
N35°01.94′
W114°58.93′
DIKES
N34°36.17′
W115°59.22′
BUGGA
N34°43.13′
W115°43.11′
R-2501
EMMEY
N34°24.96′
W116°24.91′
LAX
R-068
PARADISE
112.2 PDZ
Chan 59
R-030
R-046
(NARRATIVE ON FOLLOWING PAGE)
NOTE: Chart not to scale.

ARRIVAL DESCRIPTION

HECTOR TRANSITION (HEC.CIVET5): From over HEC VORTAC via HEC R-203 and PDZ R-046 to RUSTT DME, then via LAX R-068 to CIVET DME. Thence....

PEACH SPRINGS TRANSITION (PGS.CIVET5): From over PGS VORTAC via PGS R-229 and PDZ R-046 to RUSTT DME, then via LAX R-068 to CIVET DME. Thence....

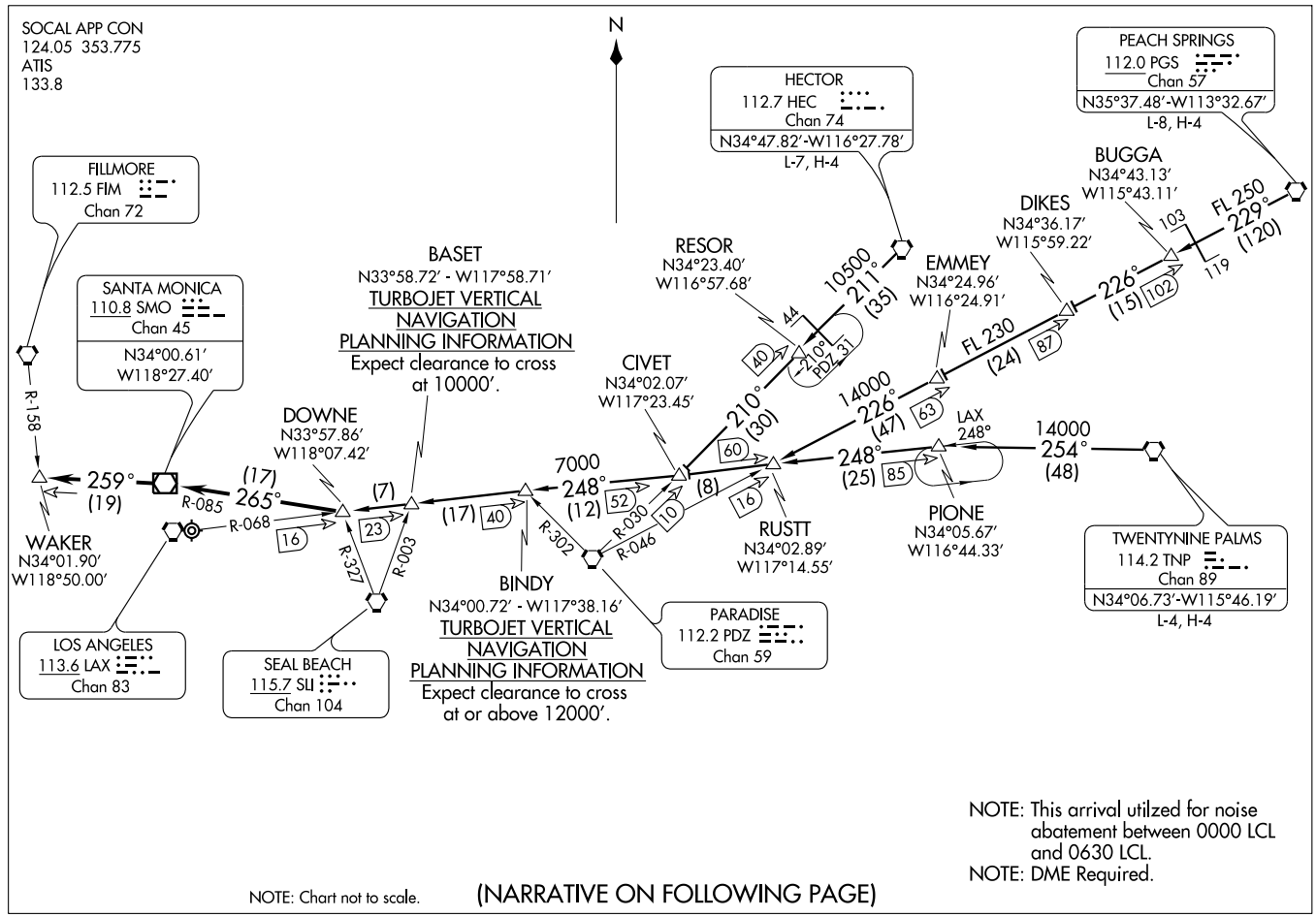
Landing Rwy 25L: . . . . From over CIVET, via LAX R-068 to FUELR. Expect ILS RWY 25L approach.

Landing Rwy 25R: . . . . From over CIVET, via LAX R-068 to DYMMO, then via heading 255° and the I-CFN localizer course to MUSIK. Expect ILS RWY 25R approach.

Landing Rwy 24L: . . . . From over CIVET via heading 259° and the I-HQB localizer course to ROWLA, thence as depicted to HURLR. Expect ILS RWY 24L approach.

Landing Rwy 24R: . . . . From over CIVET via heading 260° and the I-OSS localizer course to CAMDI, thence as depicted to PALAC. Expect ILS RWY 24R approach.

SW-3, 14 JAN 2010 to 11 FEB 2010



(DOWNE.DOWNE4) 09351

DOWNE FOUR ARRIVAL

ST-237 (FAA)

LOS ANGELES INTL
LOS ANGELES, CALIFORNIA

ARRIVAL DESCRIPTION

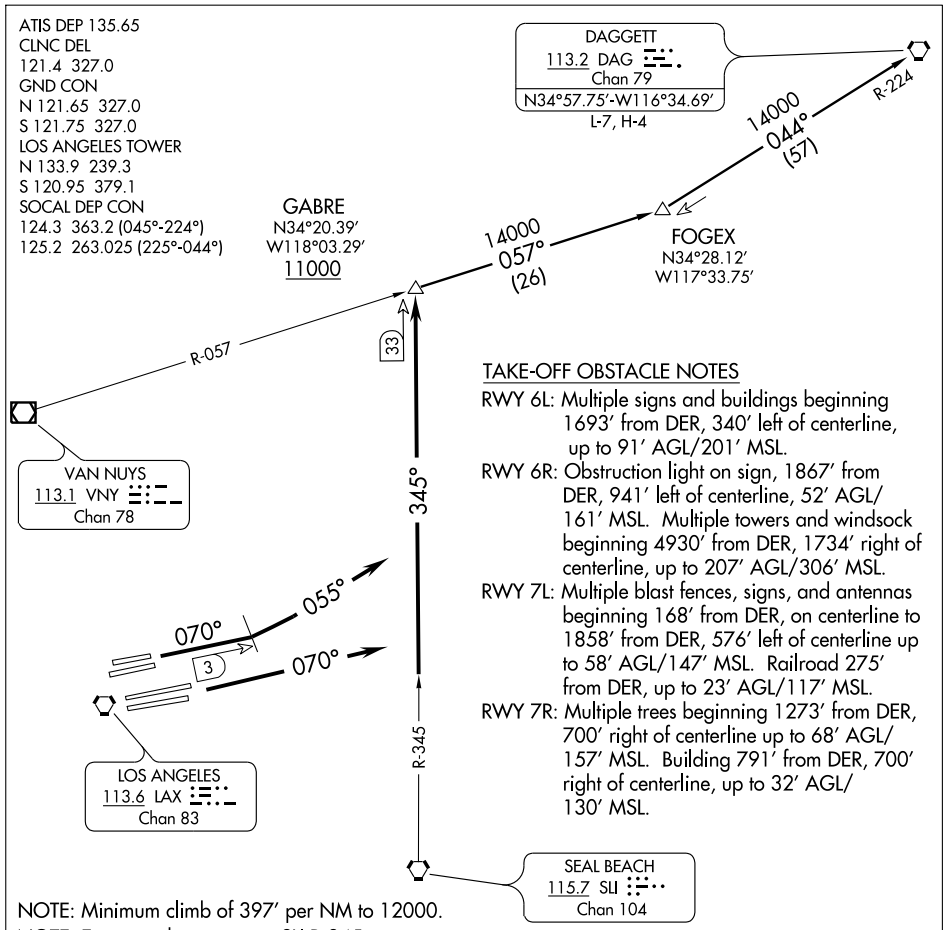
HECTOR TRANSITION (HEC.DOWNE4): From over HEC VORTAC via HEC R-211 and PDZ R-030 to CIVET INT, then LAX R-068 to DOWNE INT. Thence....
PEACH SPRINGS TRANSITION (PGS.DOWNE4): From over PGS VORTAC via PGS R-229 and PDZ R-046 to RUSTT INT, then LAX R-068 to DOWNE INT. Thence....
TWENTYNINE PALMS TRANSITION (TNP.DOWNE4): From over TNP VORTAC via TNP R-254 to PIONE DME, then LAX R-068 to DOWNE INT.Thence....
....From DOWNE INT via SMO R-085 to SMO VOR/DME, then via SMO R-259 to WAKER INT, expect vector to final approach course for runways 6 and 7.

SW-3. 14 JAN 2010 to 11 FEB 2010

GABRE SIX DEPARTURE

SL-237 (FAA)

LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA



TAKE-OFF OBSTACLE NOTES

RWY 6L: Multiple signs and buildings beginning 1693' from DER, 340' left of centerline, up to 91' AGL/201' MSL.

RWY 6R: Obstruction light on sign, 1867' from DER, 941' left of centerline, 52' AGL/161' MSL. Multiple towers and windsock beginning 4930' from DER, 1734' right of centerline, up to 207' AGL/306' MSL.

RWY 7L: Multiple blast fences, signs, and antennas beginning 168' from DER, on centerline to 1858' from DER, 576' left of centerline up to 58' AGL/147' MSL. Railroad 275' from DER, up to 23' AGL/117' MSL.

RWY 7R: Multiple trees beginning 1273' from DER, 700' right of centerline up to 68' AGL/157' MSL. Building 791' from DER, 700' right of centerline, up to 32' AGL/130' MSL.

NOTE: Minimum climb of 397' per NM to 12000.
NOTE: Expect radar vectors to SLI R-345.
NOTE: RADAR Required.
NOTE: DME Required.
NOTE: RWY 24L/R, 25L/R NA - Air Traffic.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 6L/R: Climb heading 070° until the LAX VORTAC 3 DME, then turn left heading 055° for vector to SLI R-345. Thence....

TAKE-OFF RUNWAY 7L/R: Climb heading 070° for vector to SLI R-345. Thence....

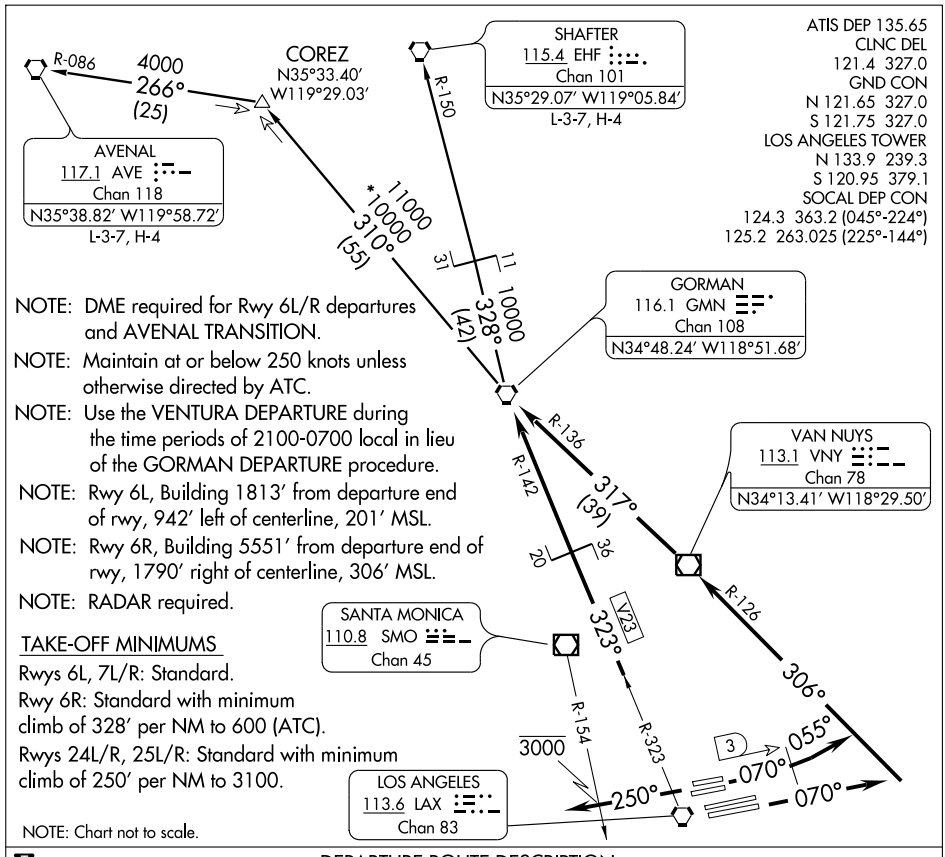
....via SLI R-345 to GABRE INT. Then via (transition) or (assigned route).

DAGGETT TRANSITION (GABRE6.DAG): From over GABRE INT via VNY R-057 and DAG R-224 to DAG VORTAC.

GORMAN FOUR DEPARTURE

SL-237 (FAA)

LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 6L/R: Climb via heading 070° until LAX VORTAC 3 DME, then turn left heading 055° for vector to join VNY R-126 to VNY VOR/DME, then via VNY R-317 and GMN R-136 to GMN VORTAC. Thence....

TAKE-OFF RUNWAYS 7L/R: Climb via heading 070° for vector to join VNY R-126 to VNY VOR/DME, then via VNY R-317 and GMN R-136 to GMN VORTAC. Thence....

TAKE-OFF RUNWAYS 24L/R,25L/R: Climb via heading 250° to cross SMO R-154 at or below 3000, then via radar vectors to proceed via LAX R-323 and GMN R-142 to GMN VORTAC. Thence....

....via (assigned transition) or (assigned route). All aircraft expect further clearance to filed flight level three minutes after departure.

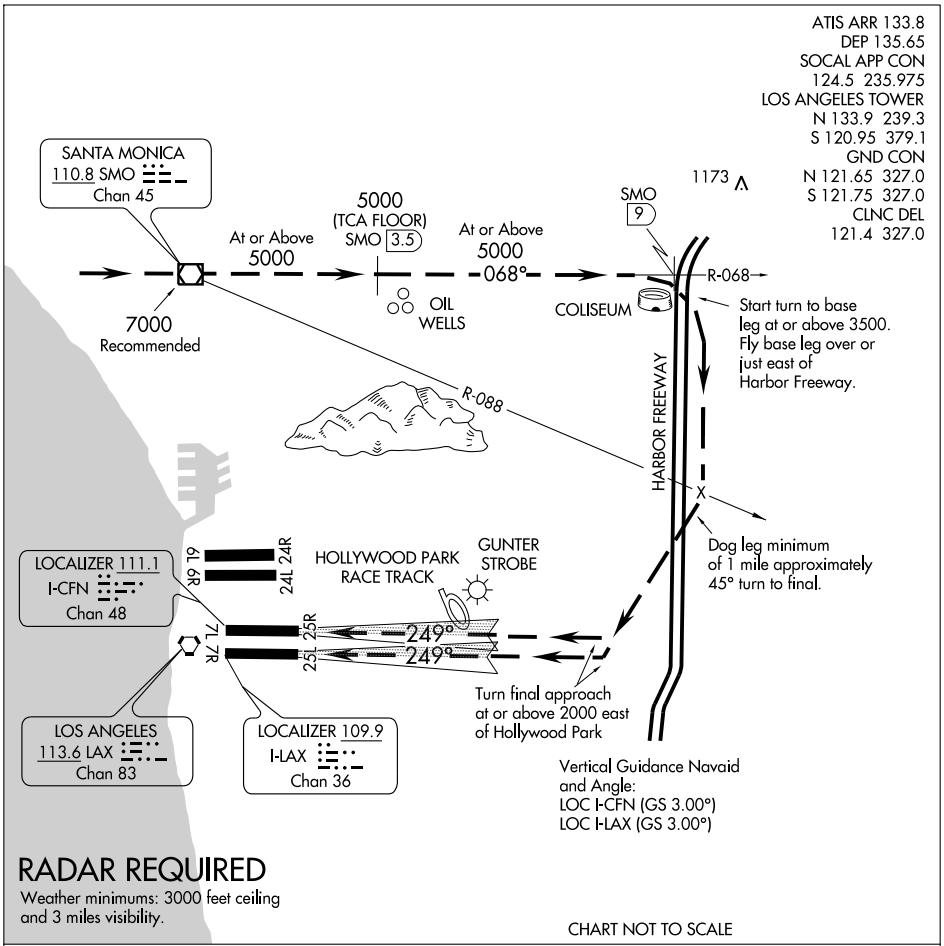
LOST COMMUNICATIONS: If not in contact with departure control within five minutes after departure, climb to FL230 or filed altitude whichever is lower. Aircraft filing FL240 or above climb to filed altitude ten minutes after departure.

AVENAL TRANSITION (GMN4.AVE): From over GMN VORTAC via GMN R-310 and AVE R-086 to AVE VORTAC.

SHAFTER TRANSITION (GMN4.EHF): From over GMN VORTAC via GMN R-328 and EHF R-150 to EHF VORTAC.

HARBOR VISUAL RWY 25L/R

LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA



RADAR REQUIRED

Weather minimums: 3000 feet ceiling and 3 miles visibility.

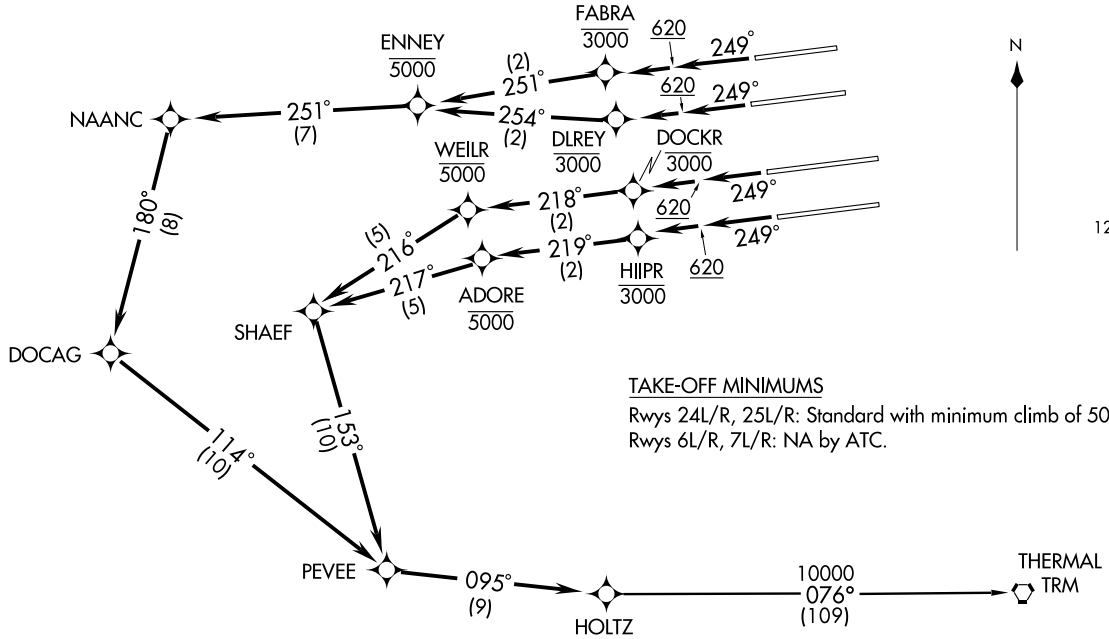
CHART NOT TO SCALE

HARBOR VISUAL APPROACH

When visual approaches to Runways 25L/R are in progress, clearances to aircraft from the north and northwest will be given utilizing the following phraseology:

"(IDENT) CLEARED FOR HARBOR VISUAL RUNWAY 25 LEFT/RIGHT APPROACH."

A descent profile of approximately 3° starting at 7000 over SMO VOR/DME may be made with reference to the minimum altitudes above.



TAKE-OFF MINIMUMS

Rwys 24L/R, 25L/R: Standard with minimum climb of 500′ per NM to 620.
Rwys 6L/R, 7L/R: NA by ATC.

TAKE-OFF OBSTACLE NOTES

Rwy 24L: Bush 957′ from DER, 601′ left of centerline, 29′ AGL/148′ MSL.
Light pole 273′ from DER, 547′ left of centerline, 12′AGL/120′ MSL.
Light pole 301′ from DER, 425′ left of centerline, 10′ AGL/118′ MSL
Antenna on pole 1358′ from DER, 287′ right of centerline 25′ AGL/144′ MSL.
Bush 240′ feet from DER, 508′ right of centerline, 10′ AGL/116′ MSL.
Light pole 296′ from DER, 321′ right of centerline, 8′ AGL/116′ MSL.
Rwy 24R: OL on glideslope 213′ from DER, 400′ left of centerline, 34′ AGL/151′ MSL.
Rwy 25L: Pole 2366′ from DER, 765′ left of centerline, 55′ AGL/184′ MSL.
T-L tower 2800′ from DER, 993′ left of centerline, 82′ AGL/192′ MSL.
Transmission tower 2856′ from DER, 927′ left of centerline, 82′ AGL/192′ MSL.
Tree 2379′ from DER, 778′ left of centerline, 79′ AGL/197′ MSL.
Bush 134′ from DER, 397′ left of centerline, 5′ AGL/123′ MSL.

NOTE: 1. DME/DME/IRU or GPS Required.
2. RNAV 1.

NOTE: For non-GPS equipped aircraft departing Rwy 25R or 25L, SLI must be operational.

NOTE: Rwys 24L, 24R departures expect radar vector to PEVEE prior to NAANC.

NOTE: RADAR Required.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

HOLTZ NINE DEPARTURE (RNAV) (HOLTZ9.HOLTZ)

09239

SL-237 (FAA)

LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 24R: Climb heading 249° to 620, then direct to cross FABRA at or below 3000, then via 251° track to cross ENNEY at or below 5000, then via depicted route to HOLTZ, Thence....
TAKE-OFF RUNWAY 24L: Climb heading 249° to 620, then direct to cross DLREY at or below 3000, then via 254° track to cross ENNEY at or below 5000, then via depicted route to HOLTZ, Thence....
TAKE-OFF RUNWAY 25R: Climb heading 249° to 620, then direct to cross DOCKR at or below 3000, then via 218° track to cross WEILR at or below 5000, then via depicted route to HOLTZ, Thence....
TAKE-OFF RUNWAY 25L: Climb heading 249° to 620, then direct to cross HIIPR at or below 3000, then via 219° track to cross ADORE at or below 5000, then via depicted route to HOLTZ, Thence....

. . . . . via THERMAL TRANSITION. Expect further clearance to filed altitude three minutes after departure.

THERMAL TRANSITION (HOLTZ9.TRM)

LOC/DME I-UWU	APP CRS	Rwy Idg 6L	8925	Rwy Idg 6R	9954
108.5	069°	TDZE	117	TDZE	114
Chan 22		Apt Elev	126	Apt Elev	126

ILS or LOC RWY 6L

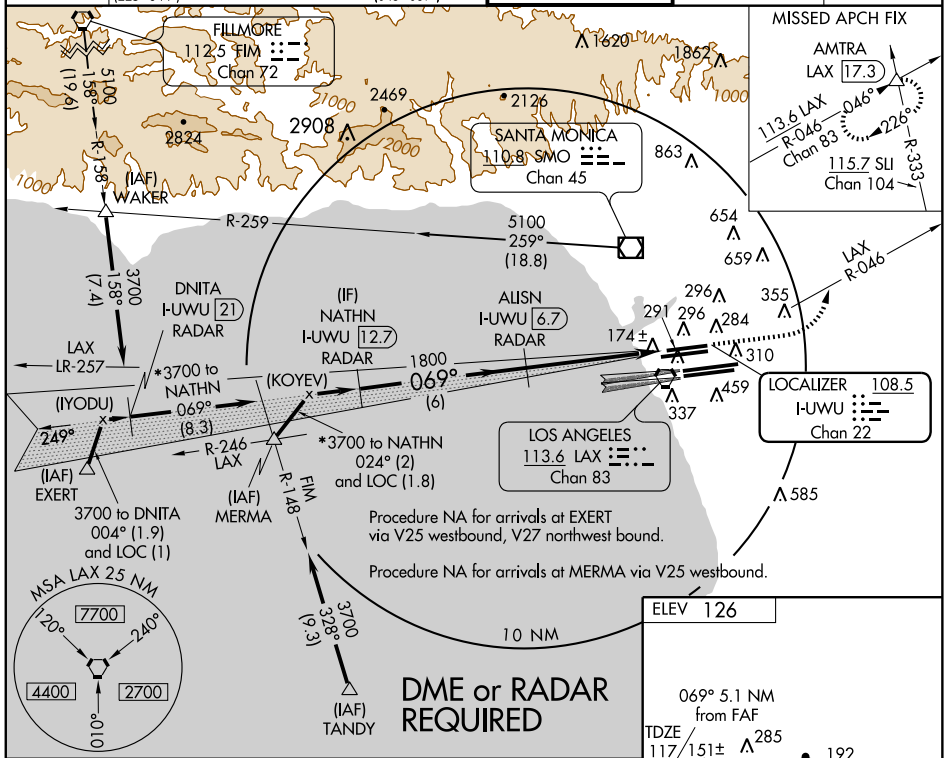
LOS ANGELES INTL (LAX)

Simultaneous approach authorized with Rwy 7L/R.
LOC procedure NA during simultaneous operations.
Inoperative table does not apply to S-ILS 6L and S-LOC 6L all Cats, Sidestep 6R Cats A/B.
For inoperative MALSR, increase Sidestep 6R Cat C visibility to 1½ mile and Cat D to 2 miles. Visibility reduction by helicopters NA.

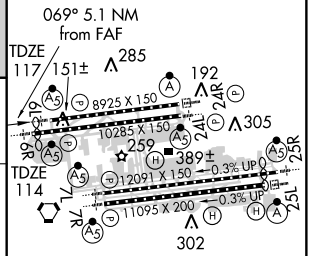
MALSR Rwys 6L and 6R

MISSED APPROACH: Climb to 600 then climbing left turn to 3000 via LAX VORTAC R-046 to AMTRA INT/LAX 17.3 DME and hold.

ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	

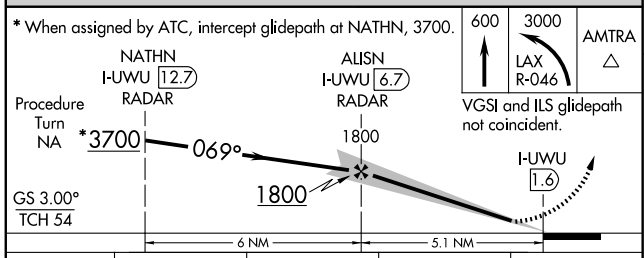


ELEV 126



TDZ/CL Rwys 6R, 7L, 24R, and 25L HIRL all Rwys

* When assigned by ATC, intercept glidepath at NATHN, 3700.



CATEGORY	A	B	C	D
S-ILS 6L	367/50 250 (300-1)			
S-LOC 6L	440/50 323 (400-1)			
SIDESTEP RWY 6R	440/60 326 (400-1¼)			440-1¾ 326 (400-1¾)

FAF to MAP 5.1 NM

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-GPE	APP CRS				
111.7	069°	Rwy Idg 6R	9954	Rwy Idg 6L	8925
Chan 54		TDZE	114	TDZE	117
		Apt Elev	126	Apt Elev	126

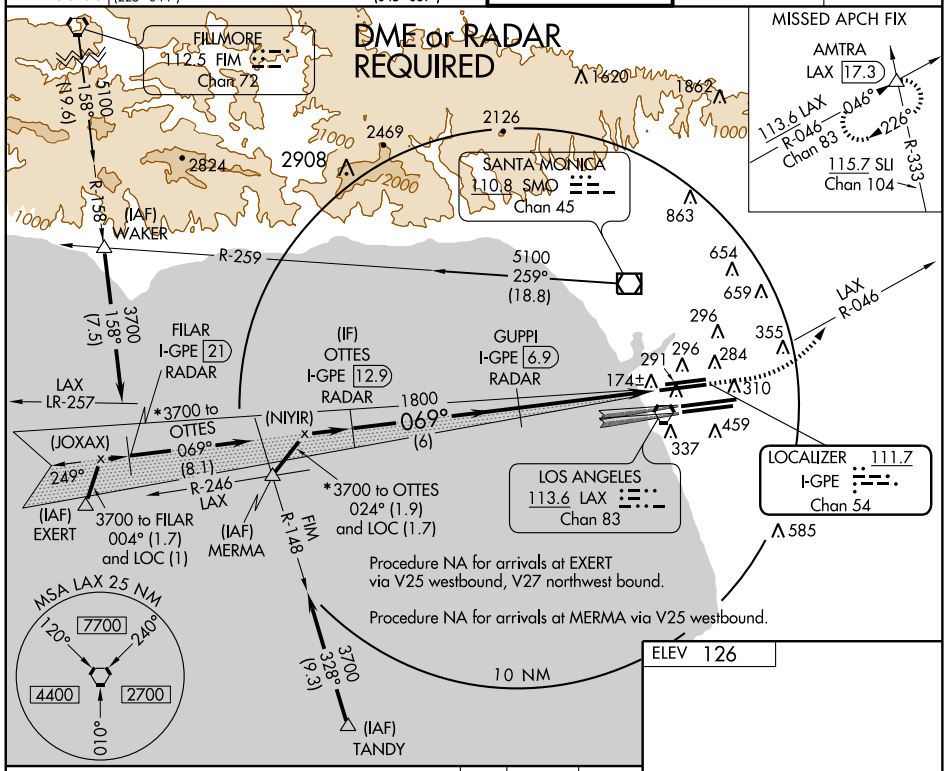
ILS or LOC RWY 6R
LOS ANGELES INTL (LAX)

Inoperative table does not apply to Sidestep Rwy 6L Cats A and B.
Simultaneous approach authorized with Rwy 7L/R.
LOC procedure NA during simultaneous operations.

MALSR Rwy 6R | MALSR Rwy 6L

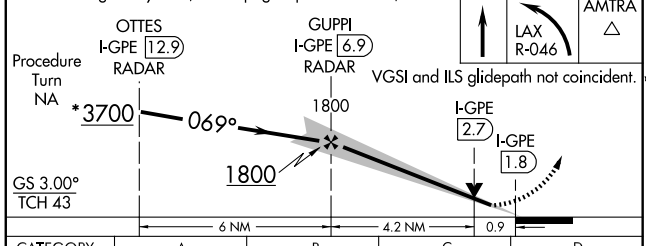
MISSED APPROACH: Climb to 600 then climbing left turn to 3000 via LAX VORTAC R-046 to AMTRA INT/LAX 17.3 DME and hold.

ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	

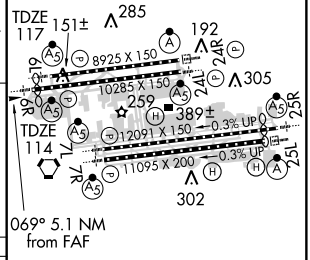


*When assigned by ATC, intercept glidepath at OTTES, 3700.

600 | 3000 LAX R-046 | AMTRA



ELEV 126



CATEGORY	A	B	C	D
S-ILS 6R	314/18 200 (200-½)			
S-LOC 6R	460/24 346 (400-½)			460/40 346 (400-¾)
SIDESTEP RWY 6L	460/50 343 (400-1)			460-1½ 343 (400-1½)

TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

FAF to MAP 5.1 NM

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

SW-3, 14 JAN 2010 to 11 FEB 2010

LOS ANGELES, CALIFORNIA AL-237 (FAA)

LOC/DME I-IAS	APP CRS	Rwy Idg 7L 12091	Rwy Idg 7R 11095
111.1	069°	TDZE 126	TDZE 125
Chan 48		Apt Elev 126	Apt Elev 126

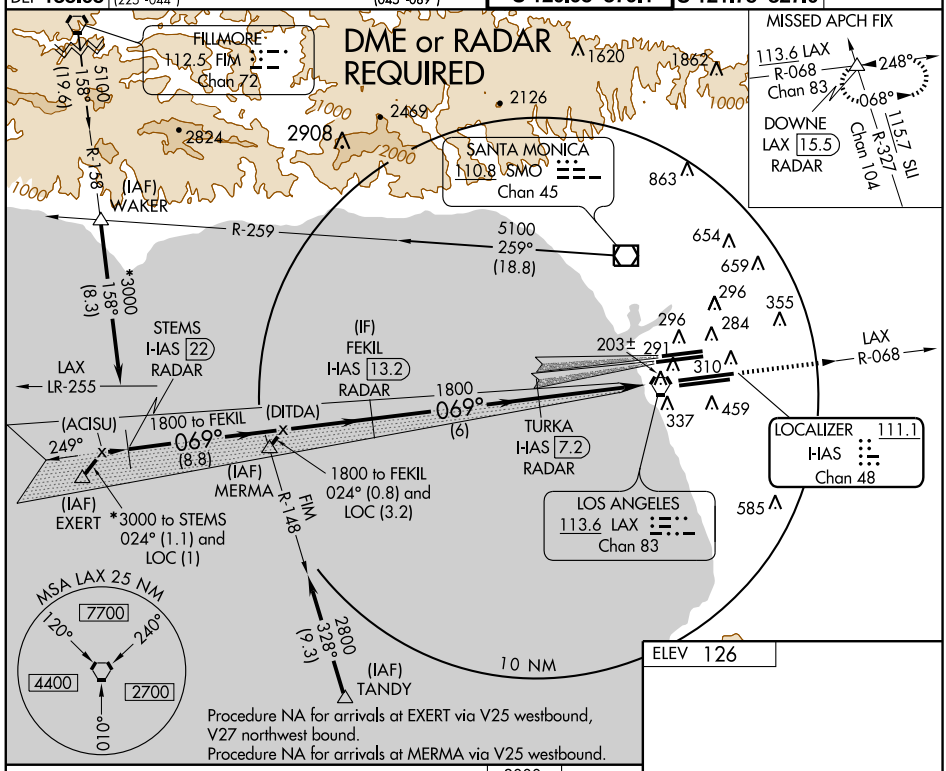
ILS or LOC RWY 7L
LOS ANGELES INTL (LAX)

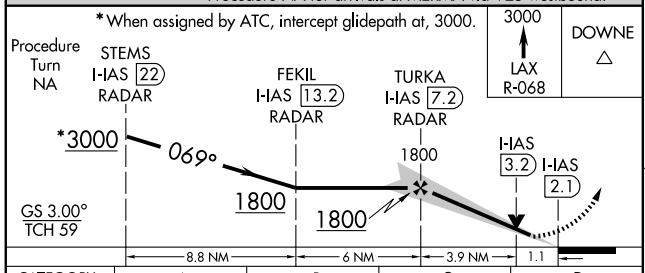
Inoperative table does not apply to Sidestep Rwy 7R Cats. A and B.
Simultaneous approach authorized with Rwy 6L/R.
LOC procedure NA during simultaneous operations.

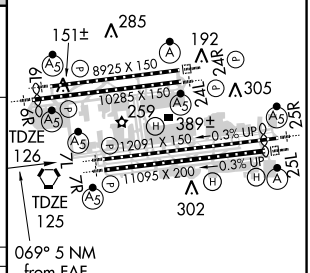
MALSR Rwy 7L (A5) MALSR Rwy 7R (A5)

MISSED APPROACH: Climb to 3000 via LAX VORTAC R-068 to DOWNE INT/ LAX 15.5 DME/RADAR and hold.

ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	







CATEGORY	A	B	C	D
S-ILS 7L	327/18 201 (300-½)			
S-LOC 7L	520/24 394 (400-½)			520/40 394 (400-¾)
SIDESTEP RWY 7R	520/50 395 (400-1)			520-1½ 395 (400-1½)

TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

FAF to MAP 5 NM

Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

SW-3, 14 JAN 2010 to 11 FEB 2010

LOS ANGELES, CALIFORNIA AL-237 (FAA)

LOC/DME I-MKZ	APP CRS	Rwy Idg 7R	11095	Rwy Idg 7L	12091
109.9	069°	TDZE	125	TDZE	126
Chan 36		Apt Elev	126	Apt Elev	126

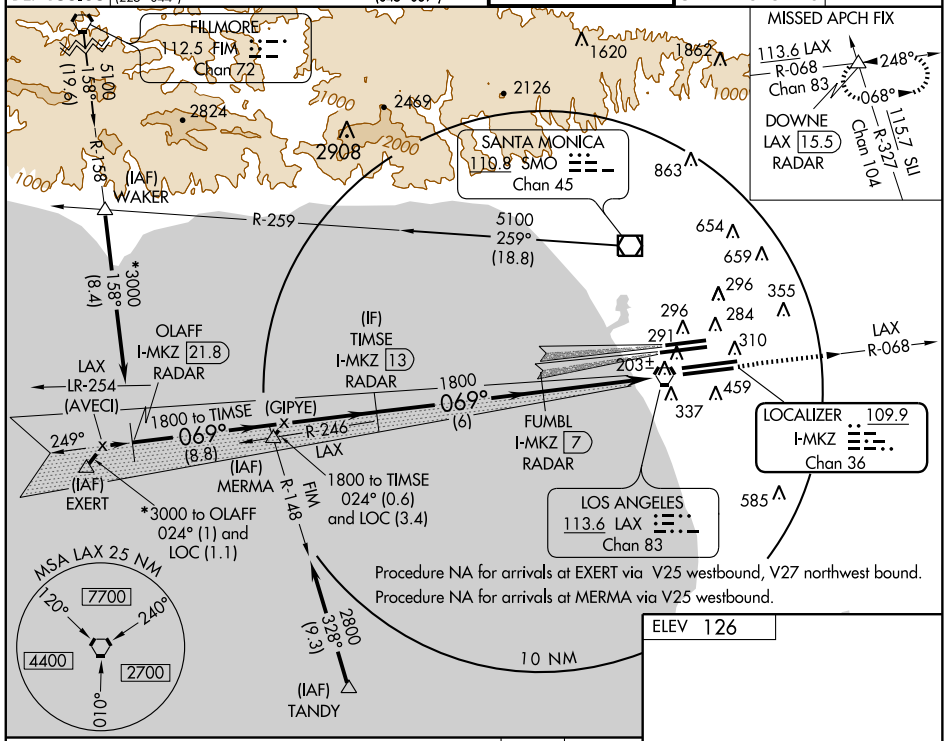
ILS or LOC RWY 7R
LOS ANGELES INTL (LAX)

For inoperative MALSR, increase S-LOC 7R Cat. D visibility to RVR 5000.
Inoperative table does not apply to Sidestep Rwy 7L Cat. A/B.
Simultaneous approach authorized with Rwy 6L/R.
LOC procedure NA during simultaneous operations.
DME or RADAR required. Autopilot coupled approach NA below 264.

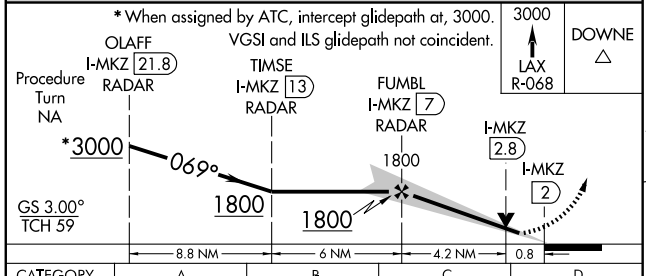
MALSR Rwys 7R and 7L

MISSED APPROACH: Climb to 3000 via LAX VORTAC R-068 to DOWNE INT/LAX 15.5 DME/RADAR and hold.

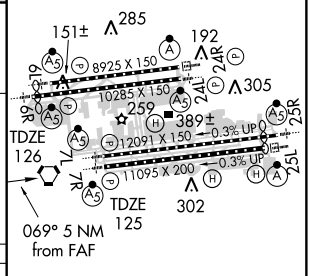
ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	



*When assigned by ATC, intercept glidepath at, 3000. VGSI and ILS glidepath not coincident.



CATEGORY	A	B	C	D
S-ILS 7R	325/24 200 (200-½)			
S-LOC 7R	460/24 335 (400-½)			460/40 335 (400-¾)
SIDESTEP RWY 7L	520/50 395 (400-1)			520-1½ 395 (400-1½)



TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-HQB	APP CRS	Rwy Idg 24L	Rwy Idg 24R
111.7 Chan 54	249°	10285 TDZE 121 Apt Elev 126	8925 TDZE 120 Apt Elev 126

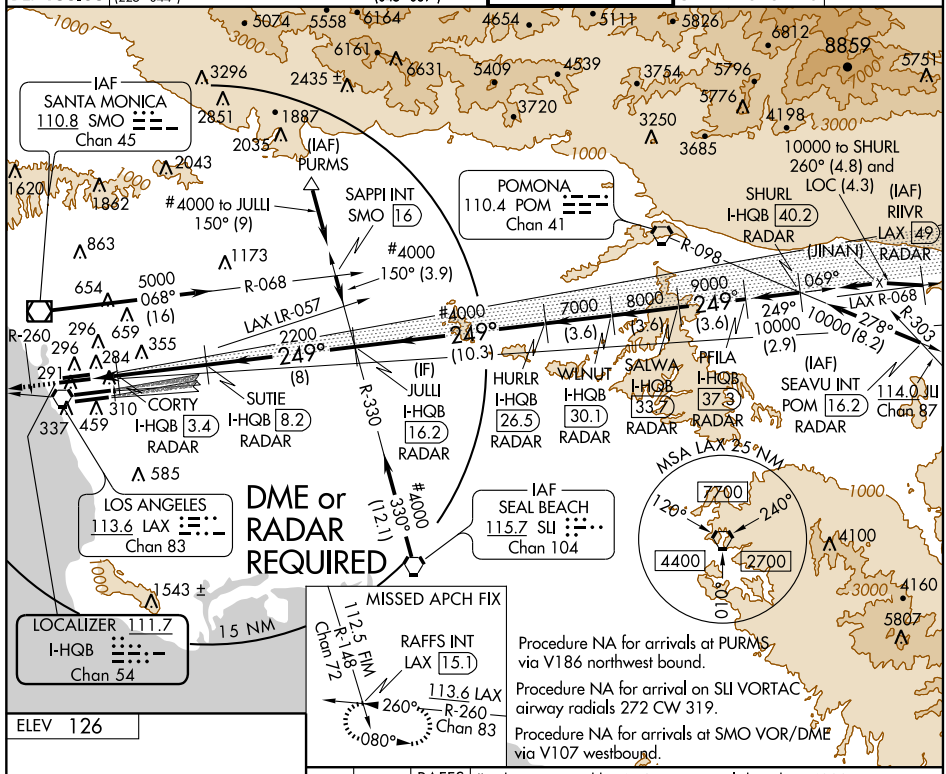
ILS or LOC RWY 24L
LOS ANGELES INTL (LAX)

Simultaneous approach authorized with Rwy 25L/R.
LOC procedure NA during simultaneous operations.
Inoperative table does not apply to Sidestep Rwy 24R Cats. A/B.

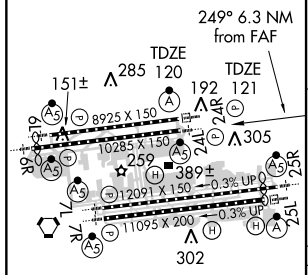
MALSR Rwy 24L | ALSF-2 Rwy 24R

MISSED APPROACH: Climb to 2000 via heading 249° and LAX VORTAC R-260 to RAFFS INT/LAX 15.1 DME and hold.

ATIS			LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8 DEP 135.65	124.3 363.2 (APCH FM WEST) (225°-044°) 124.5 235.975	SOCAL APP CON 124.9 269.0 (090°-224°) 128.5 360.7 (045°-089°)	N 133.9 239.3 S 120.95 379.1	N 121.65 327.0 S 121.75 327.0	121.4 327.0



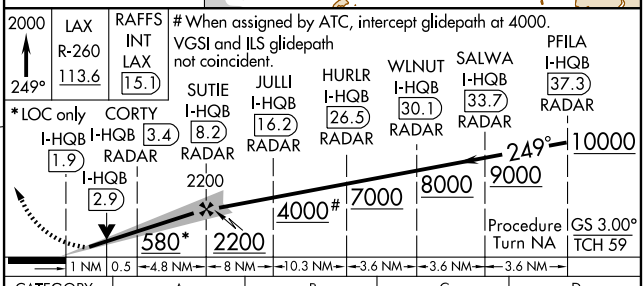
ELEV 126



TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

FAF to MAP 6.3 NM

Knots	60	90	120	150	180
Min:Sec	6:18	4:12	3:09	2:31	2:06



CATEGORY	A	B	C	D
S-ILS 24L	321/24 200 (200-½)			
S-LOC 24L	500/24 379 (400-½)			500/40 379 (400-¾)
SIDESTEP RWY 24R	580/50 460 (500-1)			580-1½ 460 (500-1½)

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-OSS	APP CRS	Rwy Idg 24R	TDZE	Apt Elev	Rwy Idg 24L	TDZE	Apt Elev
108.5 Chan 22	249°	8925	120	126	10285	121	126

ILS or LOC RWY 24R

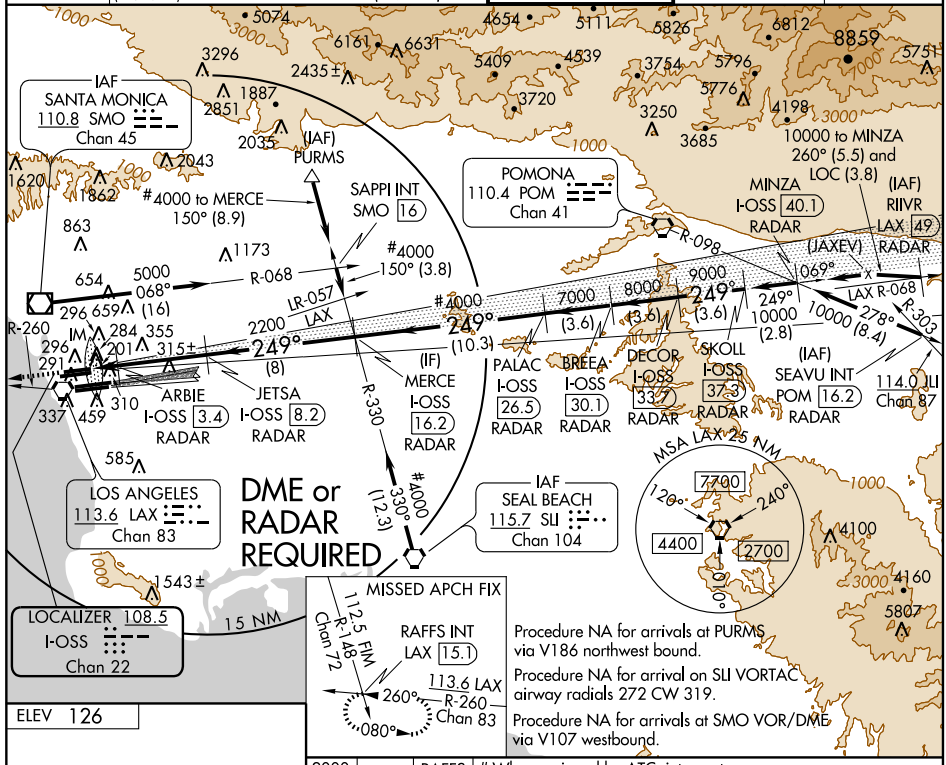
LOS ANGELES INTL (LAX)

Inoperative table does not apply to Sidestep Rwy 24L Cats A/B. For inoperative MALSR, increase S-LOC Rwy 24R Cat D visibility to RVR 5000. LOC procedure NA during simultaneous operation. Simultaneous approach authorized with Rwy 25L/R.

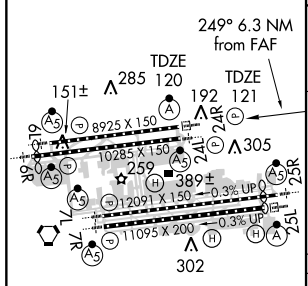
ALSF-2 Rwy 24R (A) | MALSR Rwy 24L (A5)

MISSED APPROACH: Climb to 2000 via heading 249° and LAX R-260 to RAFFS INT/LAX 15.1 DME and hold.

ATIS	SOCAL APP CON	LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8 DEP 135.65	124.3 363.2 (APCH FM WEST) 124.5 235.975 (225°-044°) 124.9 269.0 (090°-224°) 128.5 360.7 (045°-089°)	N 133.9 239.3 S 120.95 379.1	N 121.65 327.0 S 121.75 327.0	121.4 327.0

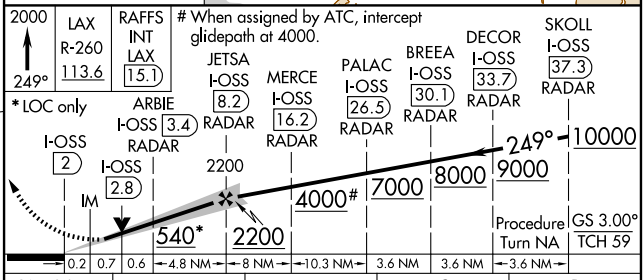


ELEV 126



TDZ/CL Rwys 6R, 7L, 24R, and 25L HIRL all Rwys

FAF to MAP 6.3 NM					
Knots	60	90	120	150	180
Min:Sec	6:18	4:12	3:09	2:31	2:06



CATEGORY	A	B	C	D
S-ILS 24R	320/18 200 (200-½)			
S-LOC 24R	460/24 340 (400-½)			460/40 340 (400-¾)
SIDESTEP RWY 24L	580/50 459 (500-1)			580-1½ 459 (500-1½)

SW-3, 14 JAN 2010 to 11 FEB 2010

LOS ANGELES, CALIFORNIA AL-237 (FAA)

ILS or LOC RWY 25L

LOS ANGELES INTL (LAX)

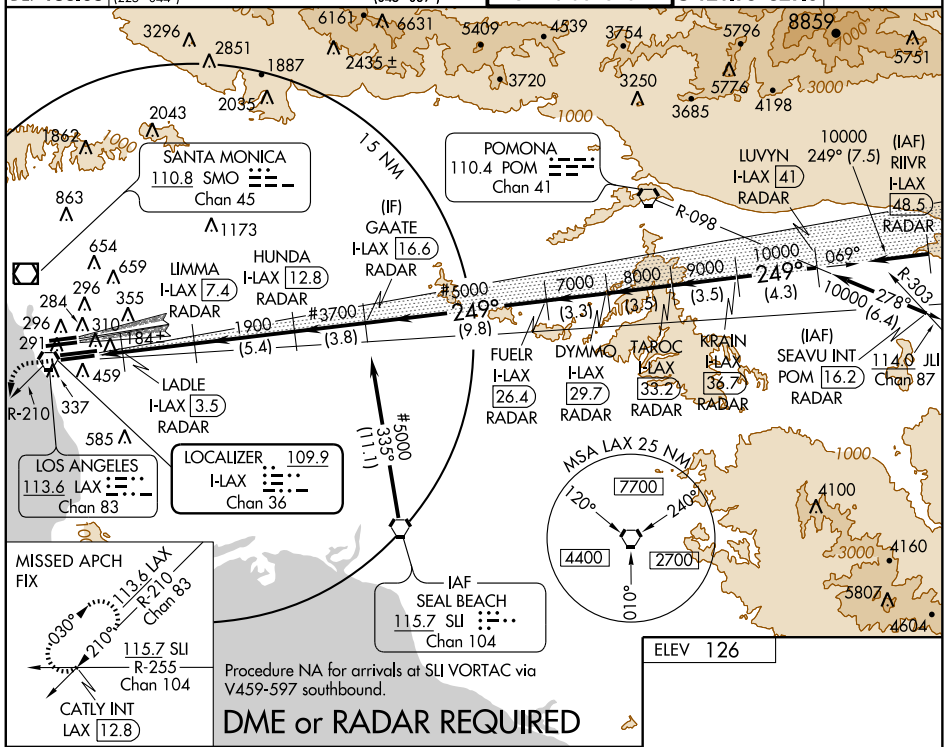
LOC/DME I-LAX	APP CRS	Rwy Idg 25L 11095	Rwy Idg 25R 11134
109.9 Chan 36	249°	TDZE 104	TDZE 102
		Apt Elev 126	Apt Elev 126

Inoperative table does not apply to Sidestep Rwy 25R Cats. A and B.
Simultaneous approach authorized with Rwy 24L/R.
LOC procedure NA during simultaneous operations.

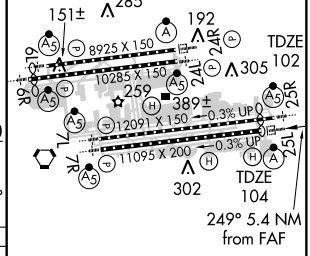
ALSF-2 Rwy 25L (A) MALSR Rwy 25R (A5)

MISSED APPROACH: Climb to 800 then climbing left turn to 2000 via heading 190° and LAX VORTAC R-210 to CATLY INT/ LAX 12.8 DME and hold.

ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	

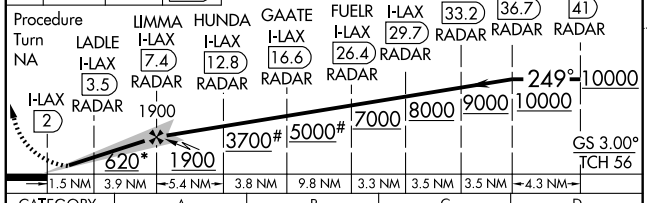


ELEV 126



800 | 2000 | 190° | LAX R-210 113.6 | CATLY INT LAX 12.8

\# When assigned by ATC, intercept glidepath at 3700 or 5000.
*LOC only



CATEGORY	A	B	C	D
S-ILS 25L	304/18 200 (200-½)			
S-LOC 25L	540/24 436 (500-½)		540/40 436 (500-¾)	540/50 436 (500-1)
SIDESTEP RWY 25R	620/50 518 (500-1)			620-1½ 518 (500-1½)

TDZ/CL Rwys 6R, 7L, 24R, and 25L HIRL all Rwys

FAF to MAP 5.4 NM

Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-CFN	APP CRS	Rwy Idg 25R	Rwy Idg 25L
111.1 Chan 48	249°	TDZE 102	TDZE 104
		Apt Elev 126	Apt Elev 126

ILS or LOC RWY 25R

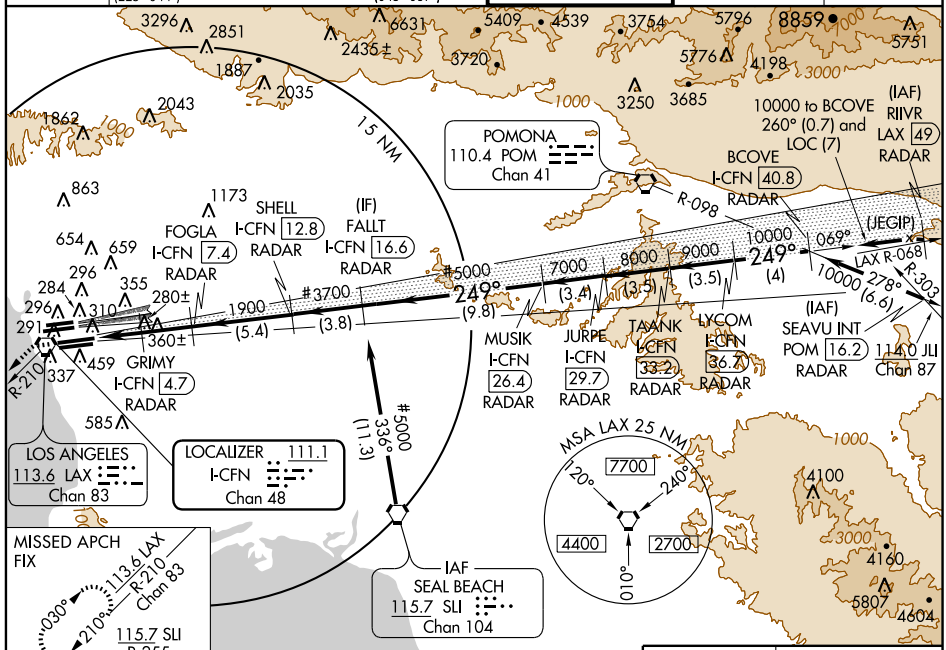
LOS ANGELES INTL (LAX)

Simultaneous approach authorized with Rwy 24L/R.
LOC procedure NA during simultaneous operations.
Inoperative table does not apply to Sidestep Rwy 25L Cat A/B.
** RVR 1800 authorized with use of FD or AP or HUD to DA.

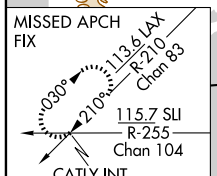
MALSR Rwy 25R (A5) ALSF-2 Rwy 25L (A)

MISSED APPROACH: Climb to 800 then climbing left turn to 2000 via heading 220° and LAX VORTAC R-210 to CATLY INT/LAX 12.8 DME and hold.

ATIS				LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)	SOCAL APP CON	124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	



MISSED APCH FIX



Procedure NA for arrivals at SLI VORTAC via V459-597 southeast bound.

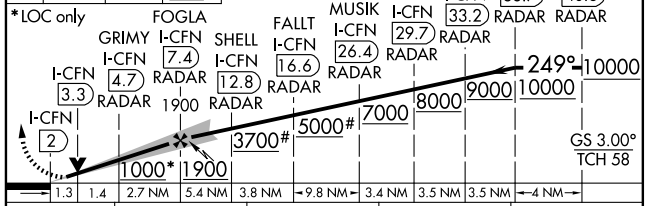
DME or RADAR REQUIRED

800	2000	LAX R-210 113.6	CATLY INT LAX 12.8
	220°		

When assigned by ATC, intercept glidepath at 3700 or 5000.

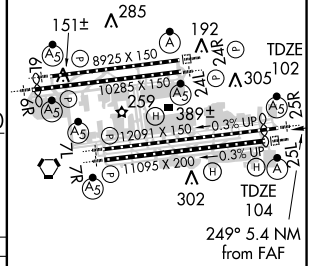
Procedure Turn NA

*LOC only



CATEGORY	A	B	C	D
S-ILS 25R	**302/24 200 (200-½)			
S-LOC 25R	560/24 458 (500-½)		560/40 458 (500-¾)	560/50 458 (500-1)
SIDESTEP RWY 25L	620/50 516 (500-1)			620-1½ 516 (500-1½)

ELEV 126



TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

FAF to MAP 5.4 NM

Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-OSS	APP CRS	Rwy Idg	8925
108.5	249°	TDZE	120
Chan 22		Apt Elev	126

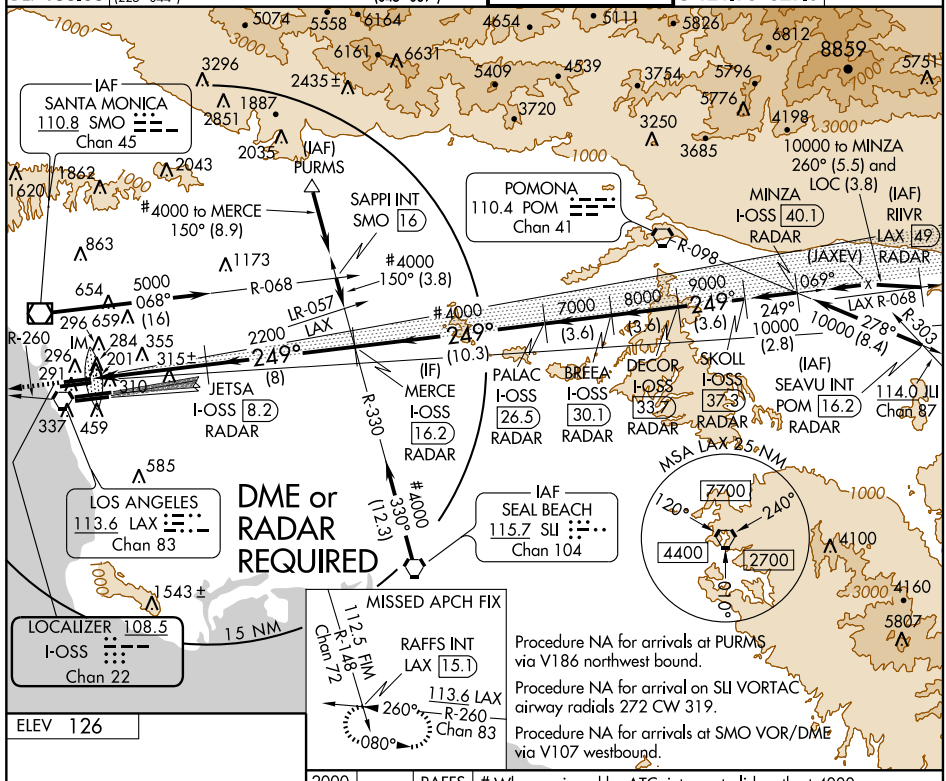
ILS RWY 24R (CAT II)
LOS ANGELES INTL (LAX)

Simultaneous approach authorized with Rwy 25L/R.

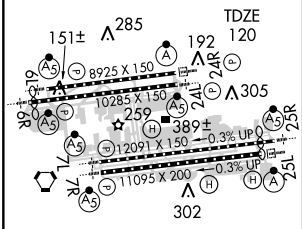
ALSF-2

MISSED APPROACH: Climb to 2000 via heading 249° and LAX R-260 to RAFFS INT/LAX 15.1 DME and hold.

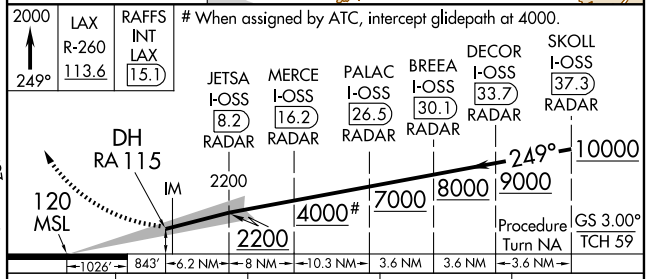
ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	



ELEV 126



TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys



CATEGORY	A	B	C	D
S-ILS 24R	RA 220/12 100 DA 115			

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-OSS	APP CRS	Rwy Idg	8925
108.5	249°	TDZE	120
Chan 22		Apt Elev	126

ILS RWY 24R (CAT III)

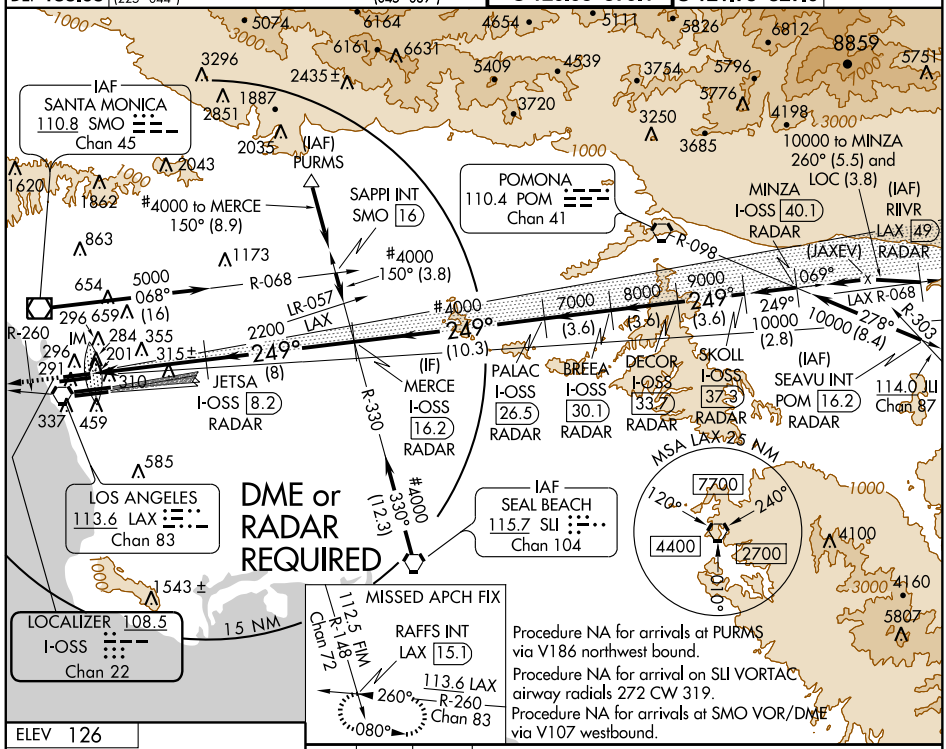
LOS ANGELES INTL (LAX)

Simultaneous approach authorized with Rwy 25L/R.

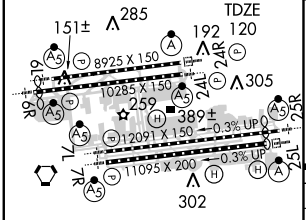
ALSF-2

MISSED APPROACH: Climb to 2000 via heading 249° and LAX R-260 to RAFFS INT/LAX 15.1 DME and hold.

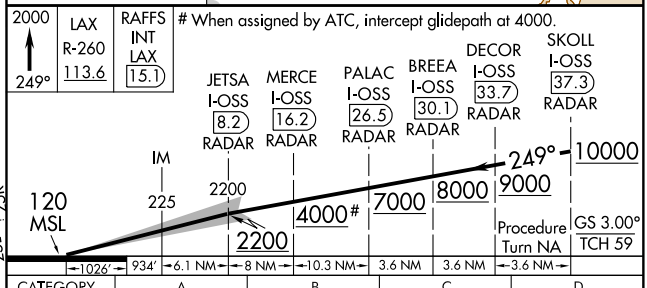
ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	



ELEV 126



TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys



CATEGORY	A	B	C	D
S-ILS 24R	CAT IIIa		RVR 07	
S-ILS 24R	CAT IIIb		RVR 06	
S-ILS 24R	CAT IIIc		NA	

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-LAX	APP CRS	Rwy Idg 11095
109.9	249°	TDZE 104
Chan 36		Apt Elev 126

ILS RWY 25L (CAT II)

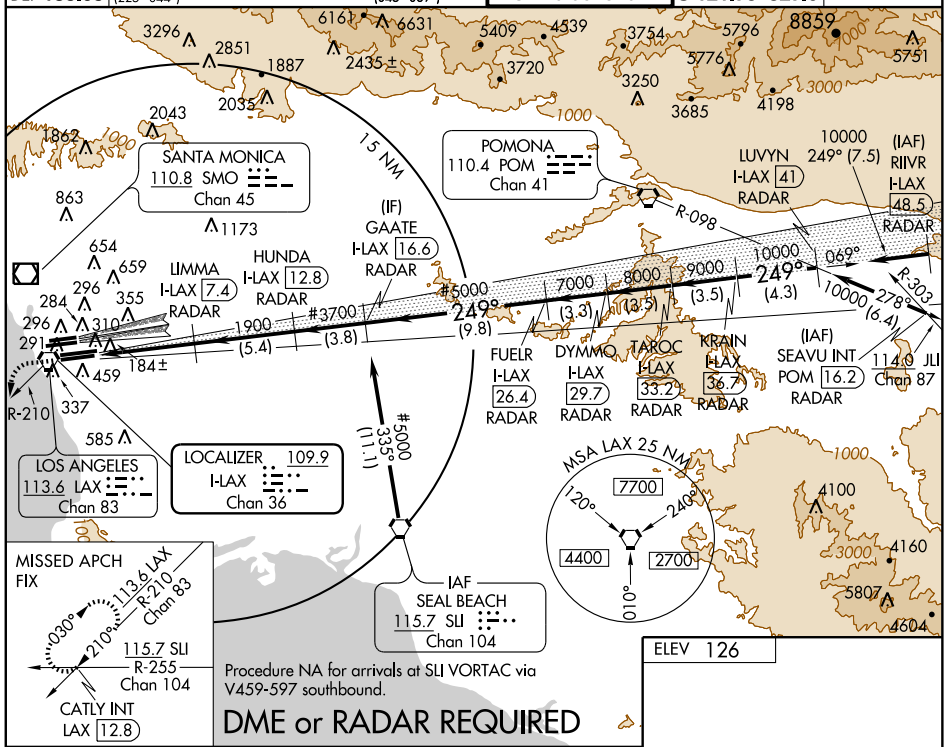
LOS ANGELES INTL (LAX)

Simultaneous approach authorized with Rwy 24L/R.

ALSF-2

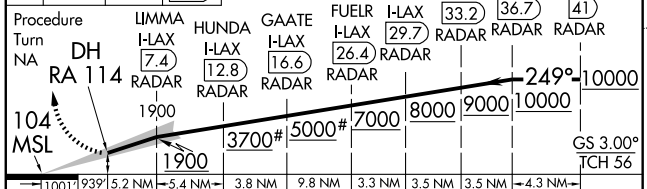
MISSED APPROACH: Climb to 800 then climbing left turn to 2000 via heading 190° and LAX VORTAC R-210 to CATLY INT/LAX 12.8 DME and hold.

ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	



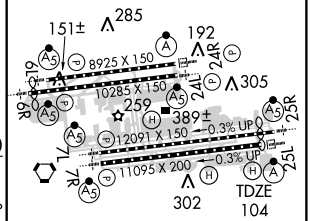
800	2000	LAX R-210 113.6	CATLY INT LAX 12.8
	190°		

When assigned by ATC, intercept glidepath at 3700 or 5000.



CATEGORY	A	B	C	D
S-ILS 25L	RA 204/12 100 DA 114			

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED



TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-LAX	APP CRS	Rwy Idg 11095
109.9	249°	TDZE 104
Chan 36		Apt Elev 126

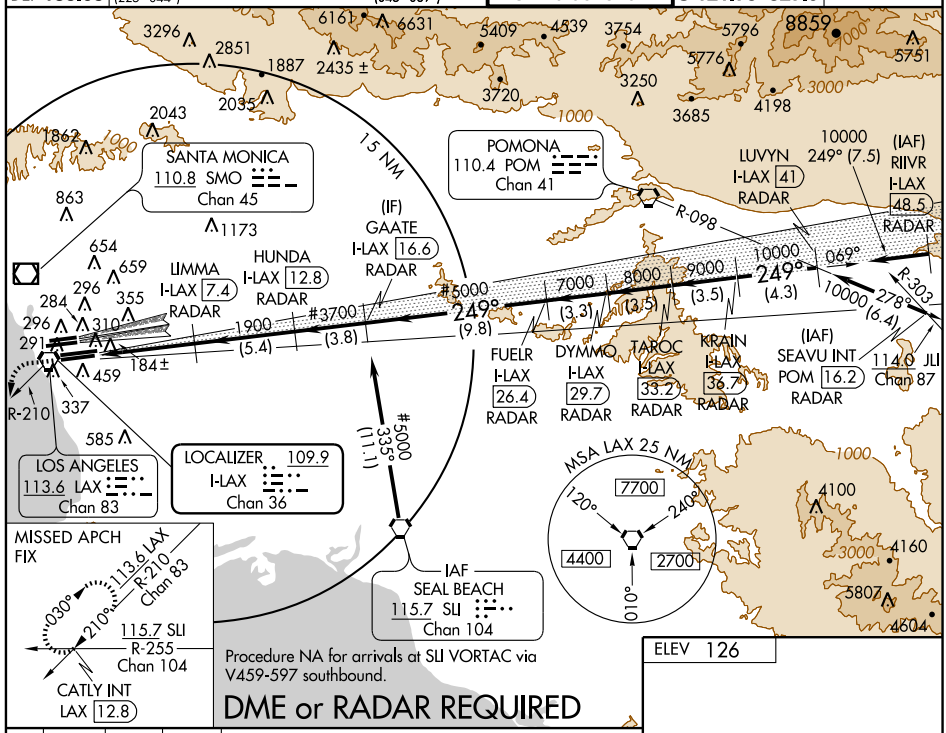
ILS RWY 25L (CAT III)
LOS ANGELES INTL (LAX)

Simultaneous approach authorized with Rwy 24L/R.

ALSF-2

MISSED APPROACH: Climb to 800 then climbing left turn to 2000 via heading 190° and LAX VORTAC R-210 to CATLY INT/LAX 12.8 DME and hold.

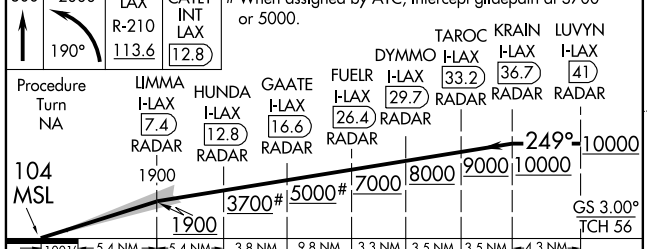
ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	

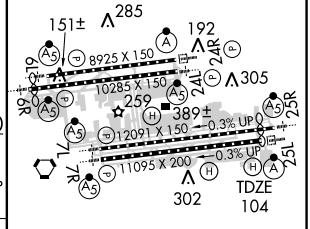


ELEV 126

800 | 2000 | 190° | LAX R-210 113.6 | CATLY INT LAX 12.8

When assigned by ATC, intercept glidepath at 3700 or 5000.





CATEGORY	A	B	C	D
S-ILS 25L	CAT IIIa	RVR 07		
S-ILS 25L	CAT IIIb	RVR 06		
S-ILS 25L	CAT IIIc	NA		

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

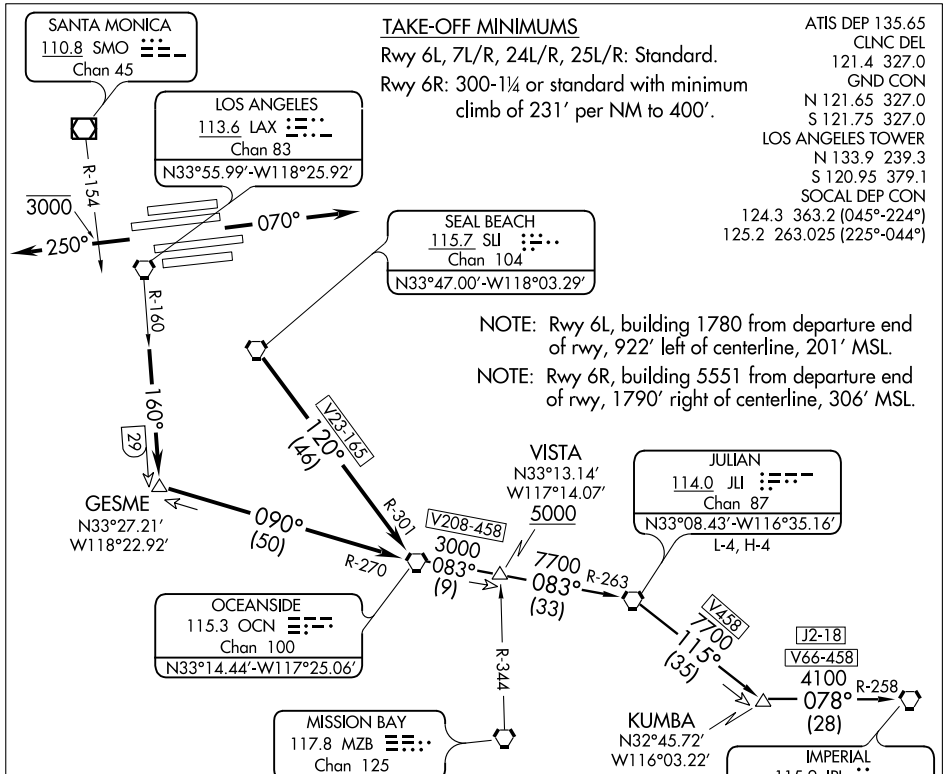
TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010

IMPER ONE DEPARTURE

SL-237 (FAA)

LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA



TAKE-OFF MINIMUMS

Rwy 6L, 7L/R, 24L/R, 25L/R: Standard.

Rwy 6R: 300-1¼ or standard with minimum climb of 231′ per NM to 400′.

ATIS DEP 135.65
CLNC DEL
121.4 327.0
GND CON
N 121.65 327.0
S 121.75 327.0
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
SOCAL DEP CON
124.3 363.2 (045°-224°)
125.2 263.025 (225°-044°)

NOTE: Rwy 6L, building 1780 from departure end of rwy, 922′ left of centerline, 201′ MSL.

NOTE: Rwy 6R, building 5551 from departure end of rwy, 1790′ right of centerline, 306′ MSL.

NOTE: RADAR required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 6L/R, 7L/R: Climb via heading 070° for vector to SLI VORTAC, then via SLI R-120 and OCN R-301 to OCN VORTAC. Thence. . . .

TAKE-OFF RUNWAYS 24L/R, 25L/R: Climb via heading 250° to cross SMO R-154 at or below 3000. Then via radar vectors to join LAX R-160 to GESME INT. Then via OCN R-270 to OCN VORTAC. Thence. . . .

. . . .via (assigned transition) or (assigned route). All aircraft expect further clearance to filed flight level three minutes after departure.

LOST COMMUNICATIONS: If not in contact with Departure Control within five minutes after departure, climb to FL230 or filed altitude whichever is lower. Aircraft filing FL240 or above climb to filed altitude ten minutes after departure.

IMPERIAL TRANSITION (IMPER1.IPL): From over OCN VORTAC via OCN R-083 and JLI R-263 to JLI VORTAC. Then via JLI R-115 and IPL R-258 to IPL VORTAC.

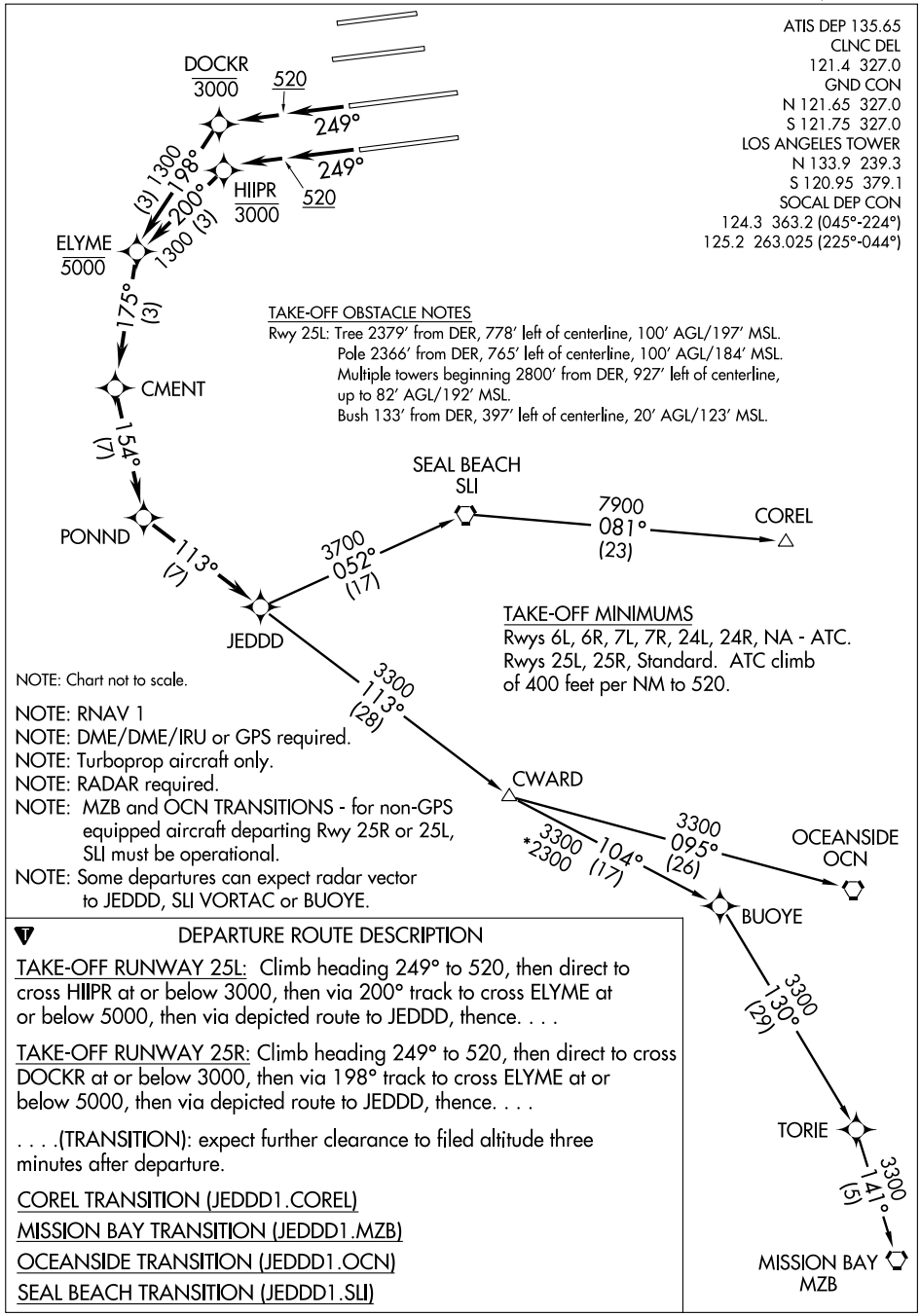
JULIAN TRANSITION (IMPER1.JLI): From over OCN VORTAC via OCN R-083 and JLI R-263 to JLI VORTAC.

JEDDD ONE DEPARTURE (RNAV)

SL-237 (FAA)

LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA

ATIS DEP 135.65
CLNC DEL
121.4 327.0
GND CON
N 121.65 327.0
S 121.75 327.0
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
SOCAL DEP CON
124.3 363.2 (045°-224°)
125.2 263.025 (225°-044°)



TAKE-OFF OBSTACLE NOTES

Rwy 25L: Tree 2379' from DER, 778' left of centerline, 100' AGL/197' MSL.
Pole 2366' from DER, 765' left of centerline, 100' AGL/184' MSL.
Multiple towers beginning 2800' from DER, 927' left of centerline, up to 82' AGL/192' MSL.
Bush 133' from DER, 397' left of centerline, 20' AGL/123' MSL.

TAKE-OFF MINIMUMS

Rwys 6L, 6R, 7L, 7R, 24L, 24R, NA - ATC.
Rwys 25L, 25R, Standard. ATC climb of 400 feet per NM to 520.

NOTE: Chart not to scale.

NOTE: RNAV 1
NOTE: DME/DME/IRU or GPS required.
NOTE: Turboprop aircraft only.
NOTE: RADAR required.
NOTE: MZB and OCN TRANSITIONS - for non-GPS equipped aircraft departing Rwy 25R or 25L, SLI must be operational.
NOTE: Some departures can expect radar vector to JEDDD, SLI VORTAC or BUOYE.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 25L: Climb heading 249° to 520, then direct to cross HIIPR at or below 3000, then via 200° track to cross ELYME at or below 5000, then via depicted route to JEDDD, thence. . . .

TAKE-OFF RUNWAY 25R: Climb heading 249° to 520, then direct to cross DOCKR at or below 3000, then via 198° track to cross ELYME at or below 5000, then via depicted route to JEDDD, thence. . . .

. . . .(TRANSITION): expect further clearance to filed altitude three minutes after departure.

COREL TRANSITION (JEDDD1.COREL)

MISSION BAY TRANSITION (JEDDD1.MZB)

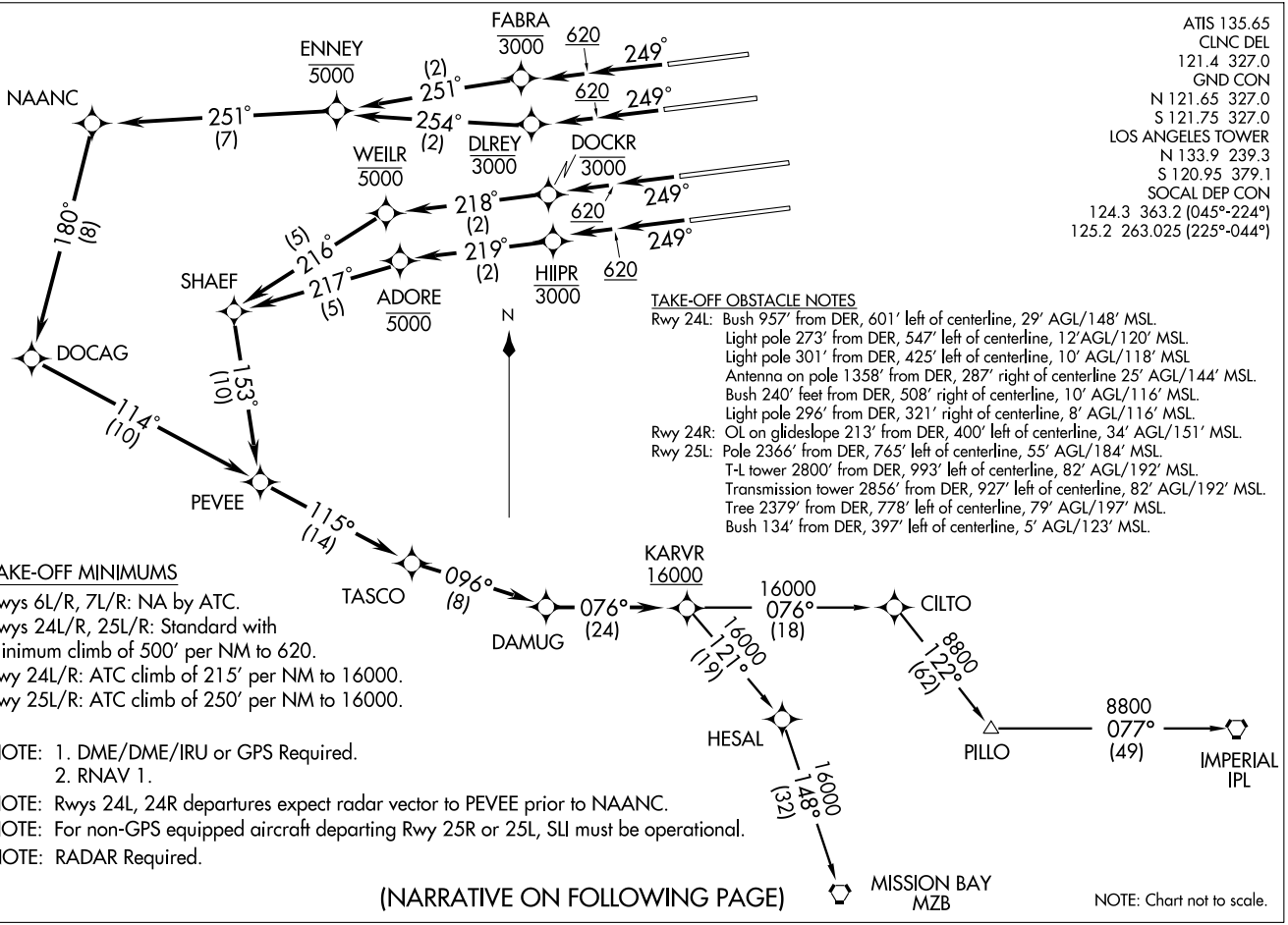
OCEANSIDE TRANSITION (JEDDD1.OCN)

SEAL BEACH TRANSITION (JEDDD1.SLI)

SW-3, 14 JAN 2010 to 11 FEB 2010

KARVR THREE DEPARTURE (RNAV)

ATIS 135.65
CLNC DEL
121.4 327.0
GND CON
N 121.65 327.0
S 121.75 327.0
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
SOCAL DEP CON
124.3 363.2 (045°-224°)
125.2 263.025 (225°-044°)



TAKE-OFF OBSTACLE NOTES

Rwy 24L: Bush 957′ from DER, 601′ left of centerline, 29′ AGL/148′ MSL.
Light pole 273′ from DER, 547′ left of centerline, 12′AGL/120′ MSL.
Light pole 301′ from DER, 425′ left of centerline, 10′ AGL/118′ MSL
Antenna on pole 1358′ from DER, 287′ right of centerline 25′ AGL/144′ MSL.
Bush 240′ feet from DER, 508′ right of centerline, 10′ AGL/116′ MSL.
Light pole 296′ from DER, 321′ right of centerline, 8′ AGL/116′ MSL.
Rwy 24R: OL on glideslope 213′ from DER, 400′ left of centerline, 34′ AGL/151′ MSL.
Rwy 25L: Pole 2366′ from DER, 765′ left of centerline, 55′ AGL/184′ MSL.
T-L tower 2800′ from DER, 993′ left of centerline, 82′ AGL/192′ MSL.
Transmission tower 2856′ from DER, 927′ left of centerline, 82′ AGL/192′ MSL.
Tree 2379′ from DER, 778′ left of centerline, 79′ AGL/197′ MSL.
Bush 134′ from DER, 397′ left of centerline, 5′ AGL/123′ MSL.

TAKE-OFF MINIMUMS

Rwys 6L/R, 7L/R: NA by ATC.
Rwys 24L/R, 25L/R: Standard with minimum climb of 500′ per NM to 620.
Rwy 24L/R: ATC climb of 215′ per NM to 16000.
Rwy 25L/R: ATC climb of 250′ per NM to 16000.

NOTE: 1. DME/DME/IRU or GPS Required.
2. RNAV 1.
NOTE: Rwys 24L, 24R departures expect radar vector to PEVEE prior to NAANC.
NOTE: For non-GPS equipped aircraft departing Rwy 25R or 25L, SLI must be operational.
NOTE: RADAR Required.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 24R: Climb heading 249° to 620, then direct to cross FABRA at or below 3000, then via 251° track to cross ENNEY at or below 5000, then via depicted route to cross KARVR at or above 16000. Thence....
TAKE-OFF RUNWAY 24L: Climb heading 249° to 620, then direct to cross DLREY at or below 3000, then via 254° track to cross ENNEY at or below 5000, then via depicted route to cross KARVR at or above 16000. Thence....
TAKE-OFF RUNWAY 25R: Climb heading 249° to 620, then direct to cross DOCKR at or below 3000, then via 218° track to cross WEILR at or below 5000, then via depicted route to cross KARVR at or above 16000. Thence....
TAKE-OFF RUNWAY 25L: Climb heading 249° to 620, then direct to cross HIIPR at or below 3000, then via 219° track to cross ADORE at or below 5000, then via depicted route to cross KARVR at or above 16000. Thence....

. . . . . via TRANSITION. Expect further clearance to filed altitude five minutes after departure.

IMPERIAL TRANSITION (KARVR3.IPL)

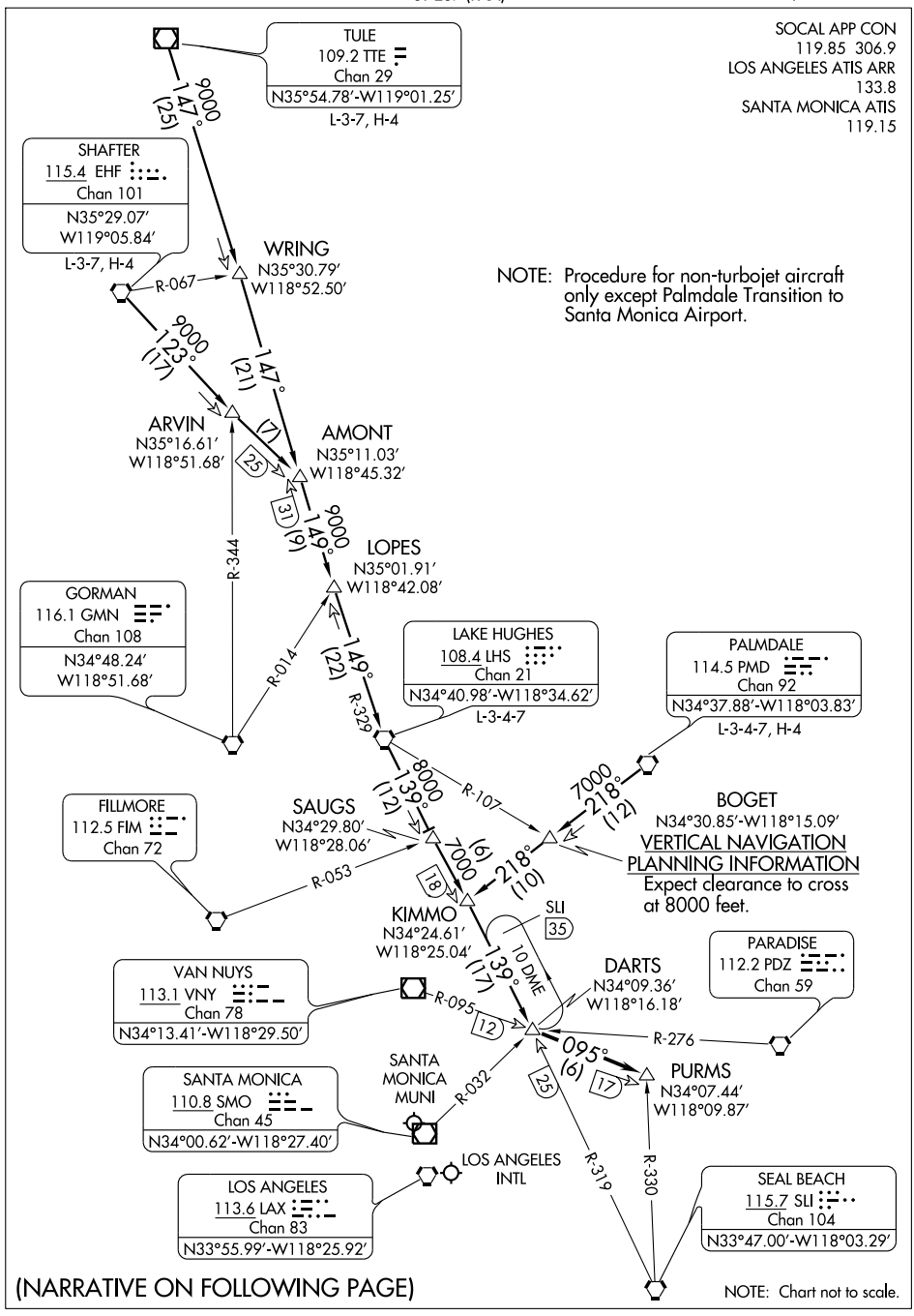
MISSION BAY TRANSITION (KARVR3.MZB)

(DARTS.KIMMO2) 09351

KIMMO TWO ARRIVAL

ST-237 (FAA)

LOS ANGELES, CALIFORNIA



(NARRATIVE ON FOLLOWING PAGE)

SW-3, 14 JAN 2010 to 11 FEB 2010

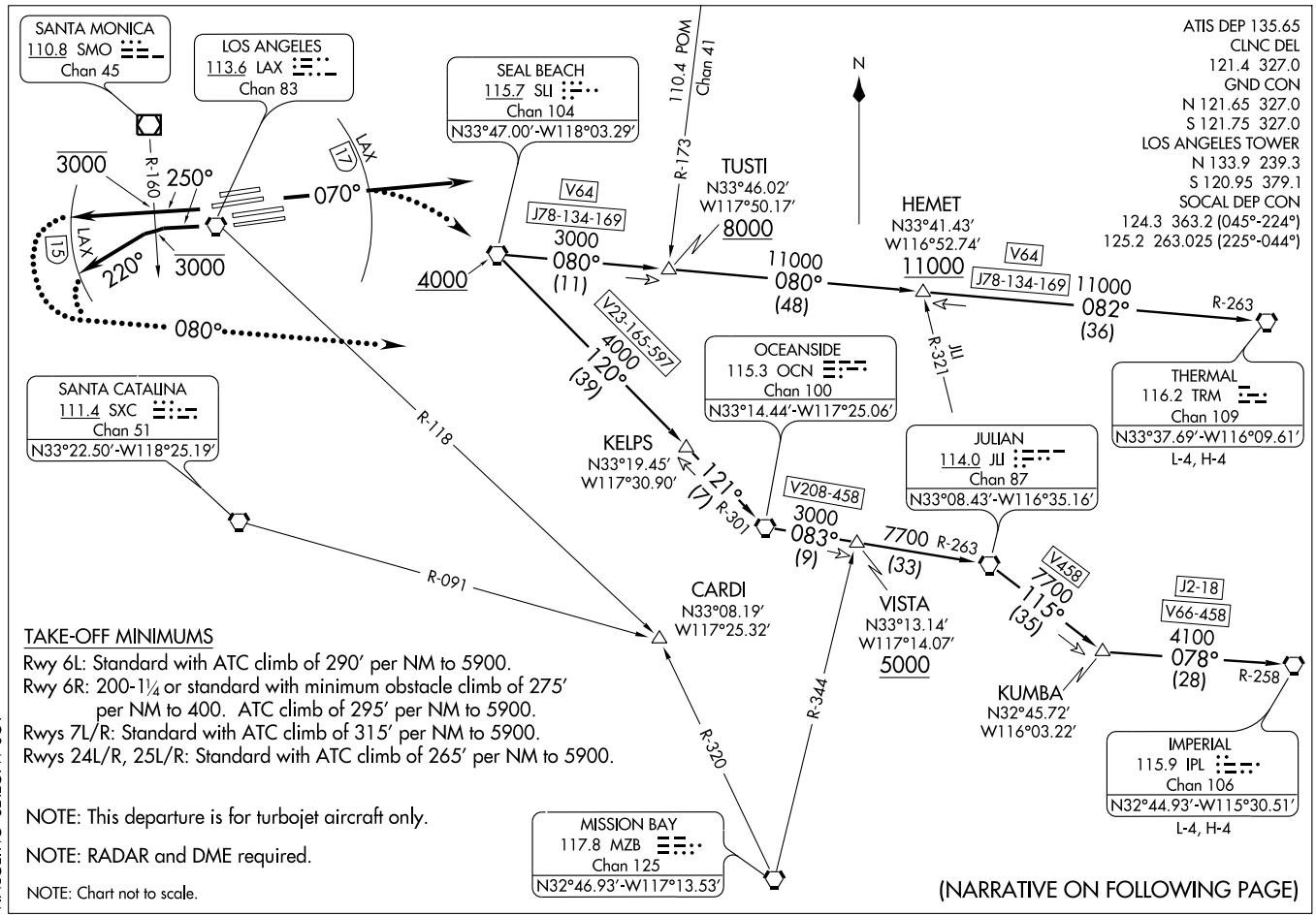
KIMMO TWO ARRIVAL

ARRIVAL ROUTE DESCRIPTION

LAKE HUGHES TRANSITION (LHS.KIMMO2): From over LHS VORTAC via LHS R-139 to DARTS INT. Thence....
PALMDALE TRANSITION (PMD.KIMMO2): From over PMD VORTAC via PMD R-218 to KIMMO INT, then via LHS R-139 to DARTS INT. Thence....
SHAFTER TRANSITION (EHF.KIMMO2): From over EHF VORTAC via EHF R-123 and LHS R-329 to LHS VORTAC, then via LHS R-139 to DARTS INT. Thence....
TULE TRANSITION (TTE.KIMMO2): From over TTE VOR/DME via TTE R-147 and LHS R-329 to LHS VORTAC, then via LHS R-139 to DARTS INT. Thence....

....LANDING LOS ANGELES INTL: From over DARTS INT via VNY R-095 to PURMS INT. Expect radar vectors to final approach course.
....LANDING SANTA MONICA MUNI: From over DARTS INT expect radar vectors to final approach course.

SW-3, 14 JAN 2010 to 11 FEB 2010


SANTA MONICA
110.8 SMO
Chan 45
LOS ANGELES
113.6 LAX
Chan 83
SEAL BEACH
115.7 SLI
Chan 104
N33°47.00'-W118°03.29'
110.4 POM
Chan 41
R-173
N
ATIS DEP 135.65
CLNC DEL
121.4 327.0
GND CON
N 121.65 327.0
S 121.75 327.0
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
SOCAL DEP CON
124.3 363.2 (045°-224°)
125.2 263.025 (225°-044°)
3000
R-160
250°
070°
LAX
I7
LAX
I5
220°
3000
080°
4000
V64
J78-134-169
3000
080°
(11)
TUSTI
N33°46.02'
W117°50.17'
8000
11000
080°
(48)
HEMET
N33°41.43'
W116°52.74'
11000
V64
J78-134-169
11000
082°
(36)
R-263
THERMAL
116.2 TRM
Chan 109
N33°37.69'-W116°09.61'
L-4, H-4
JLI
R-321
V23-165-597
4000
120°
(39)
OCEANSIDE
115.3 OCN
Chan 100
N33°14.44'-W117°25.06'
JULIAN
114.0 JLI
Chan 87
N33°08.43'-W116°35.16'
SANTA CATALINA
111.4 SXC
Chan 51
N33°22.50'-W118°25.19'
R-118
KELPS
N33°19.45'
W117°30.90'
121°
(7)
R-301
V208-458
3000
083°
(9)
7700
(33)
R-263
V458
7700
115°
(35)
J2-18
V66-458
4100
078°
(28)
R-258
R-091
CARDI
N33°08.19'
W117°25.32'
VISTA
N33°13.14'
W117°14.07'
5000
KUMBA
N32°45.72'
W116°03.22'
IMPERIAL
115.9 IPL
Chan 106
N32°44.93'-W115°30.51'
L-4, H-4
R-320
R-344
MISSION BAY
117.8 MZB
Chan 125
N32°46.93'-W117°13.53'
TAKE-OFF MINIMUMS
Rwy 6L: Standard with ATC climb of 290' per NM to 5900.
Rwy 6R: 200-1¼ or standard with minimum obstacle climb of 275' per NM to 400. ATC climb of 295' per NM to 5900.
Rwys 7L/R: Standard with ATC climb of 315' per NM to 5900.
Rwys 24L/R, 25L/R: Standard with ATC climb of 265' per NM to 5900.
NOTE: This departure is for turbojet aircraft only.
NOTE: RADAR and DME required.
NOTE: Chart not to scale.
(NARRATIVE ON FOLLOWING PAGE)
(LAXX6.LAX) 09239
LAXX SIX DEPARTURE
SL-237 (FAA)
LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 24L/R: Climb heading 250° to cross SMO R-160 at or below 3000, then via radar vectors to assigned route/fix/transition. Thence....

TAKE-OFF RUNWAYS 25L/R: Climb heading 250° to cross SMO R-160 at or below 3000, then via heading 220° for radar vectors to assigned route/fix/transition. Thence....

TAKE-OFF RUNWAYS 6L/R, 7L/R: Climb heading 070° for vectors to SLI VORTAC. Thence....

....all aircraft expect further clearance to filed flight level three minutes after departure.

LOST COMMUNICATIONS:

RUNWAYS 24L/R, 25L/R: If not in contact with departure control by 15 DME west of LAX VORTAC, then turn left heading 080°, climb to FL230 or filed altitude whichever is lower, and when able proceed direct filed or assigned route. Aircraft filed FL240 or above, maintain FL230 for five minutes then continue climb to filed altitude.

RUNWAYS 6L/R, 7 L/R: If not in contact with departure control by 17 DME east of LAX VORTAC, climb to FL230 or filed altitude whichever is lower, turn right direct SLI and proceed via assigned route. Aircraft filed FL240 or above, maintain FL230 for five minutes then continue climb to filed altitude.

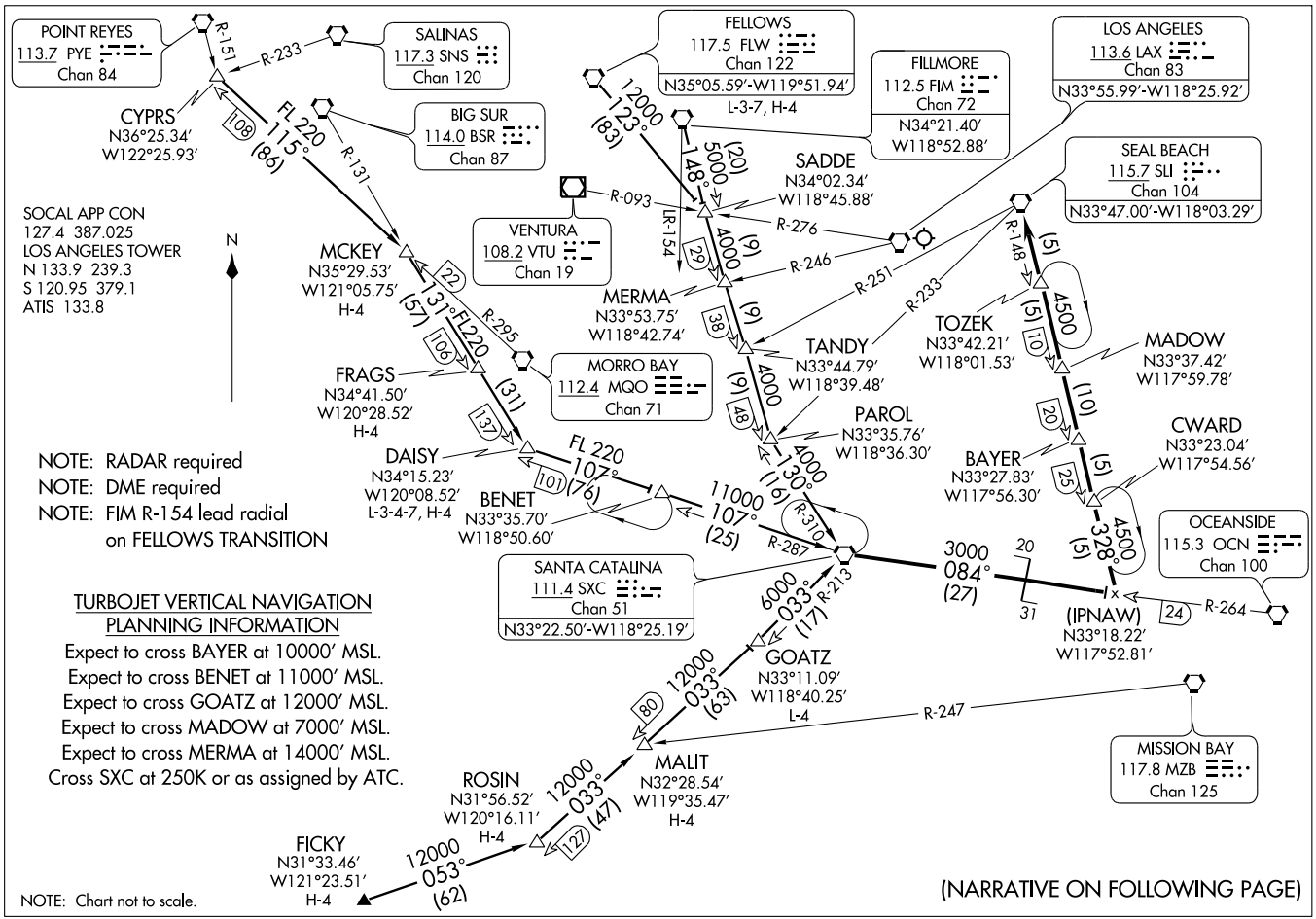
THERMAL TRANSITION (LAXX6.TRM): From over SLI VORTAC via SLI R-080 and TRM R-263 to TRM VORTAC.

IMPERIAL TRANSITION (LAXX6.IPL): From over SLI VORTAC via SLI R-120 and OCN R-301 to OCN VORTAC, then via OCN R-083 and JLI R-263 to JLI VORTAC, then via JLI R-115 and IPL R-258 to IPL VORTAC.

TAKE-OFF OBSTACLE NOTES:

RWY 6L: Buildings and signs beginning 1693′ from DER, 339′ left of centerline, up to 50′ AGL/201′ MSL.
RWY 6R: Antenna on building 560′ from DER, 479′ right of centerline, 18′ AGL/127′ MSL.
OL on building 5550′ from DER, 1791′ right of centerline, 202′ AGL/306′ MSL.
OL on sign and sign beginning 1866′ from DER, 920′ left of centerline, up to 49′ AGL/161′ MSL.
RWY 7L: OL on blast fence 168′ from DER, 33′ left of centerline, 14′ AGL/106′ MSL.
Poles beginning 1290′ from DER, 505′ left of centerline, up to 55′ AGL/147′ MSL.
Antenna on building 1576′ from DER, 315′ left of centerline, 55′ AGL/147′ MSL.
Sign and railroad beginning 351′ from DER, 10′ left of centerline, up to 29′ AGL/124′ MSL.
Railroad 275′ from DER, 500′ right of centerline, 23′ AGL/115′ MSL.
App light and OL on LOC beginning 979′ from DER, on rwy centerline, up to 27′ AGL/119′ MSL.
RWY 7R: Trees and building beginning 790′ from DER, 606′ right of centerline, up to 58′ AGL/157′ MSL.
RWY 24L: Bush 956′ from DER, 600′ left of centerline, 40′ AGL/148′ MSL.
Light poles beginning 273′ from DER, 425′ left of centerline, up to 10′ AGL/120′ MSL.
Antenna on pole 1357′ from DER, 286′ right of centerline, 36′ AGL/144′ MSL.
Light poles and bushes beginning 239′ from DER, 321′ right of centerline, up to 8′ AGL/116′ MSL.
RWY 24R: OL on GS, 212′ from DER, 399′ left of centerline, 39′ AGL/151′ MSL.
RWY 25L: Tree and pole beginning 2366′ from DER, 764′ left of centerline, up to 80′ AGL/197′ MSL.
Trmsn towers beginning 2800′ from DER, 926′ left of centerline, up to 71′ AGL/192′ MSL.
Bush 133′ from DER, 397′ left of centerline, 4′ AGL/123′ MSL.

SW-3, 14 JAN 2010 to 11 FEB 2010



(SXC.LEENA4) 07298

LEENA FOUR ARRIVAL

ST-237 (FAA)

LOS ANGELES INTL
LOS ANGELES, CALIFORNIA

ARRIVAL DESCRIPTION

CYPRS TRANSITION (CYPRS.LEENA4): From over CYPRS INT via MQO R-295 to MCKEY INT, then via BSR R-131 to DAISY INT, and SXC R-287 to SXC VORTAC. Thence....

DAISY TRANSITION (DAISY.LEENA4): From over DAISY INT via SXC R-287 to SXC VORTAC. Thence....

FELLOWS TRANSITION (FLW.LEENA4): From over FLW VORTAC via FLW R-123 to SADDE INT, then via FIM R-148 to PAROL INT, and SXC R-310 to SXC VORTAC. Thence....

FICKY TRANSITION (FICKY.LEENA4): From over FICKY direct ROSIN DME, then via SXC R-213 to SXC VORTAC. Thence....

FILLMORE TRANSITION (FIM.LEENA4): From over FIM VORTAC via FIM R-148 to PAROL INT, then via SXC R-310 to SXC VORTAC. Thence....

FRAGS TRANSITION (FRAGS.LEENA4): From over FRAGS INT via BSR R-131 to DAISY INT, and SXC R-287 to SXC VORTAC. Thence....

GOATZ TRANSITION (GOATZ.LEENA4): From over GOATZ DME via SXC R-213 to SXC VORTAC. Thence....

MALIT TRANSITION (MALIT.LEENA4): From over MALIT DME via SXC R-213 to SXC VORTAC. Thence....

MCKEY TRANSITION (MCKEY.LEENA4): From over MCKEY INT via BSR R-131 to DAISY INT, and SXC R-287 to SXC VORTAC. Thence....

ROSIN TRANSITION (ROSIN.LEENA4): From over ROSIN DME via SXC R-213 to SXC VORTAC. Thence....

....From over SXC VORTAC via SXC R-084 and OCN R-264 to (IPNAW) to intercept the SLI R-148 to CWARD INT. From CWARD INT via SLI R-148 to SLI VORTAC. Expect radar vectors to ILS approach for Rwy 25L.

SW-3, 14 JAN 2010 to 11 FEB 2010

LOOP FOUR DEPARTURE

SL-237 (FAA)

ATIS DEP 135.65
CLNC DEL
121.4 327.0
GND CON
N 121.65 327.0
S 121.75 327.0
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
SOCAL DEP CON
124.3 363.2 (045°-224°)
125.2 263.025 (225°-044°)

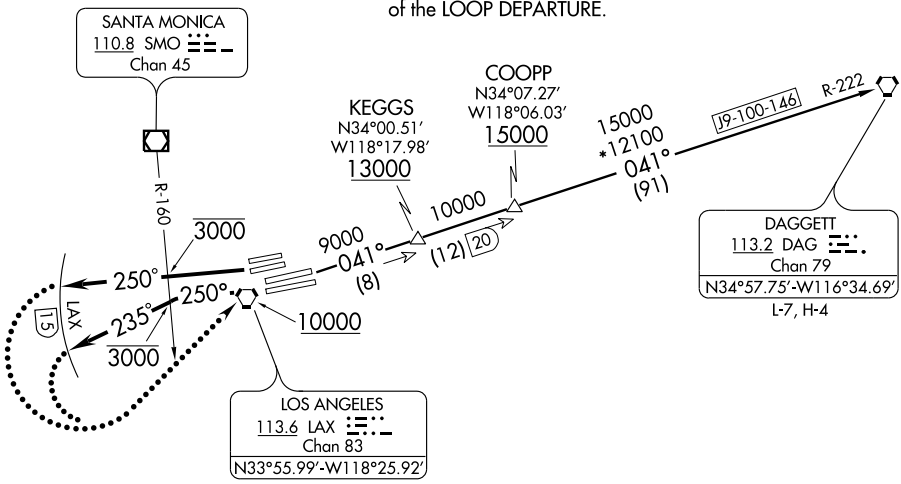
TAKE-OFF MINIMUMS

Rwys 24L/R, 25L/R: Standard.
Rwys 6L/R, 7L/R: NA- Air Traffic.

NOTE: RADAR and DME Required.

NOTE: ATC minimum climb of 500′ per NM to 10,000 required. If unable, use LAXX DEPARTURE.

NOTE: Use LAXX DEPARTURE, DAGGETT TRANSITION, during the period 2100-0700 local time in lieu of the LOOP DEPARTURE.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 24L/R: Climb via heading 250° to cross SMO R-160 at or below 3000, then via radar vectors to LAX VORTAC. Expect left turn direct LAX VORTAC. Thence....

TAKE-OFF RUNWAYS 25L/R: Climb via heading 250° to cross SMO R-160 at or below 3000, then turn left heading 235° for vector to LAX VORTAC. Expect left turn direct LAX VORTAC. Thence....

.... via (assigned transition) or (assigned route). All aircraft expect further clearance to filed flight level three minutes after departure.

LOST COMMUNICATIONS: If not in contact with Departure Control by 15 DME west of LAX VORTAC, turn left and proceed direct LAX VORTAC, climb to FL230 or filed altitude whichever is lower, and when able proceed via filed or assigned route/fix/transition. Aircraft filing FL240 or above climb to filed altitude ten minutes after departure.

DAGGETT TRANSITION (LOOP4.DAG): From over LAX VORTAC via LAX R-041 and DAG R-222 to DAG VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010

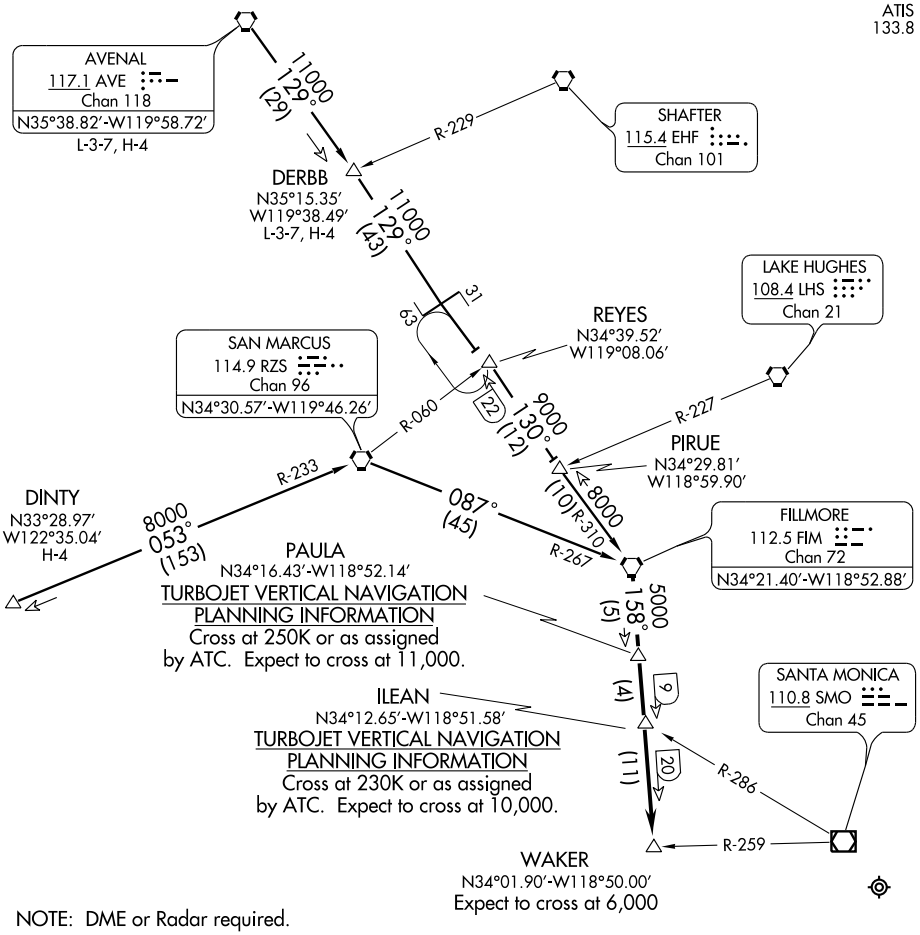
(FIM.MOOR3) 09351

MOORPARK THREE ARRIVAL

ST-237 (FAA)

LOS ANGELES INTL
LOS ANGELES, CALIFORNIA

SOCAL APP CON
124.5 235.975
ATIS
133.8



NOTE: DME or Radar required.

NOTE: Chart not to scale.

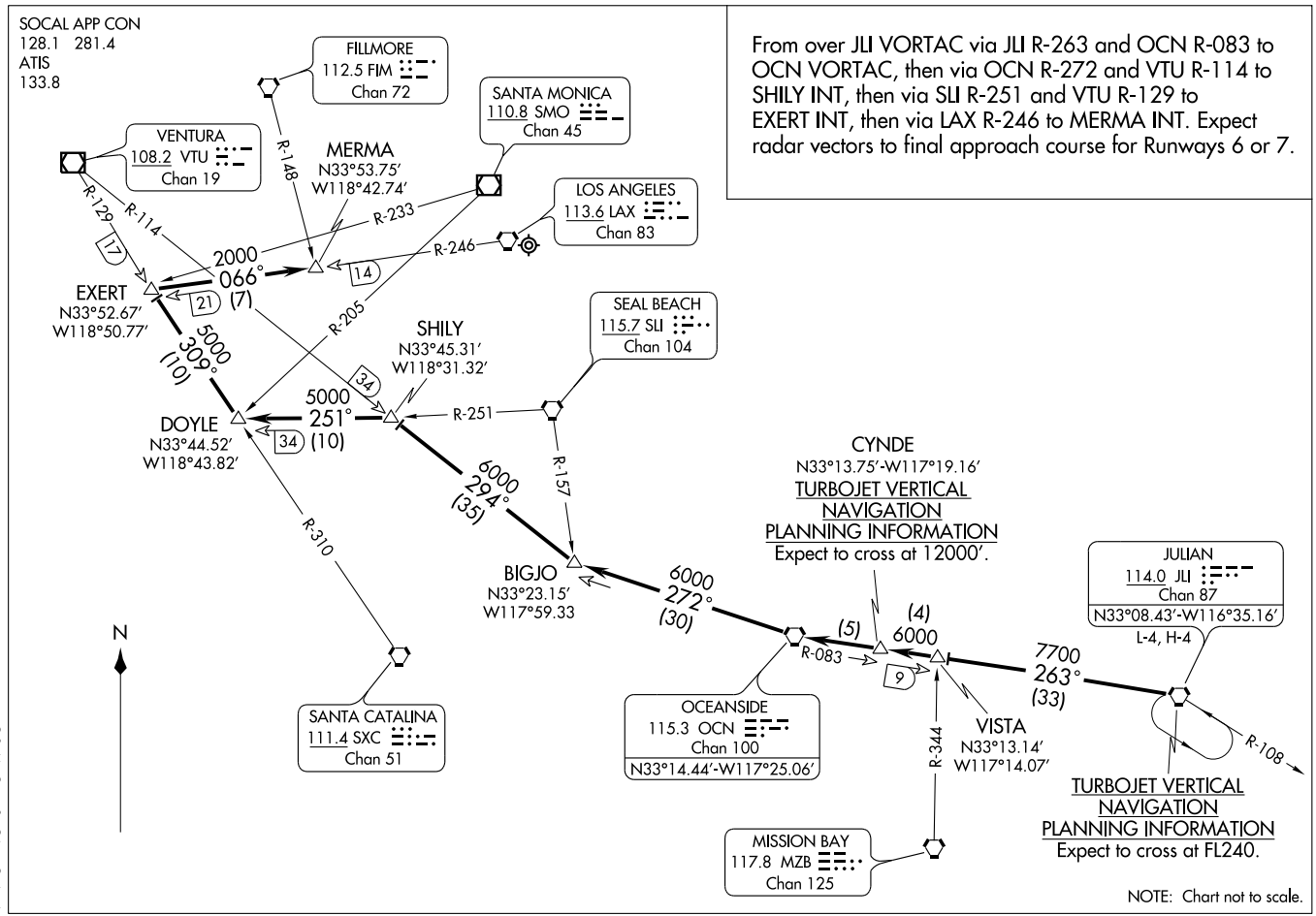
SW-3, 14 JAN 2010 to 11 FEB 2010

AVENAL TRANSITION (AVE.MOOR3): From over AVE VORTAC via AVE R-129 and FIM R-310 to FIM VORTAC. Thence....

DERBB TRANSITION (DERBB.MOOR3): From over DERBB INT via AVE R-129 and FIM R-310 to FIM VORTAC. Thence....

DINTY TRANSITION (DINTY.MOOR3): From over DINTY INT via RZS R-233 to RZS VORTAC. Then via RZS R-087 and FIM R-267 to FIM VORTAC. Thence....

....From over FIM VORTAC via FIM R-158 to WAKER INT. For Runways 6L/R or 7L/R: From WAKER INT expect vector to final approach course for LOS ANGELES INTERNATIONAL AIRPORT.

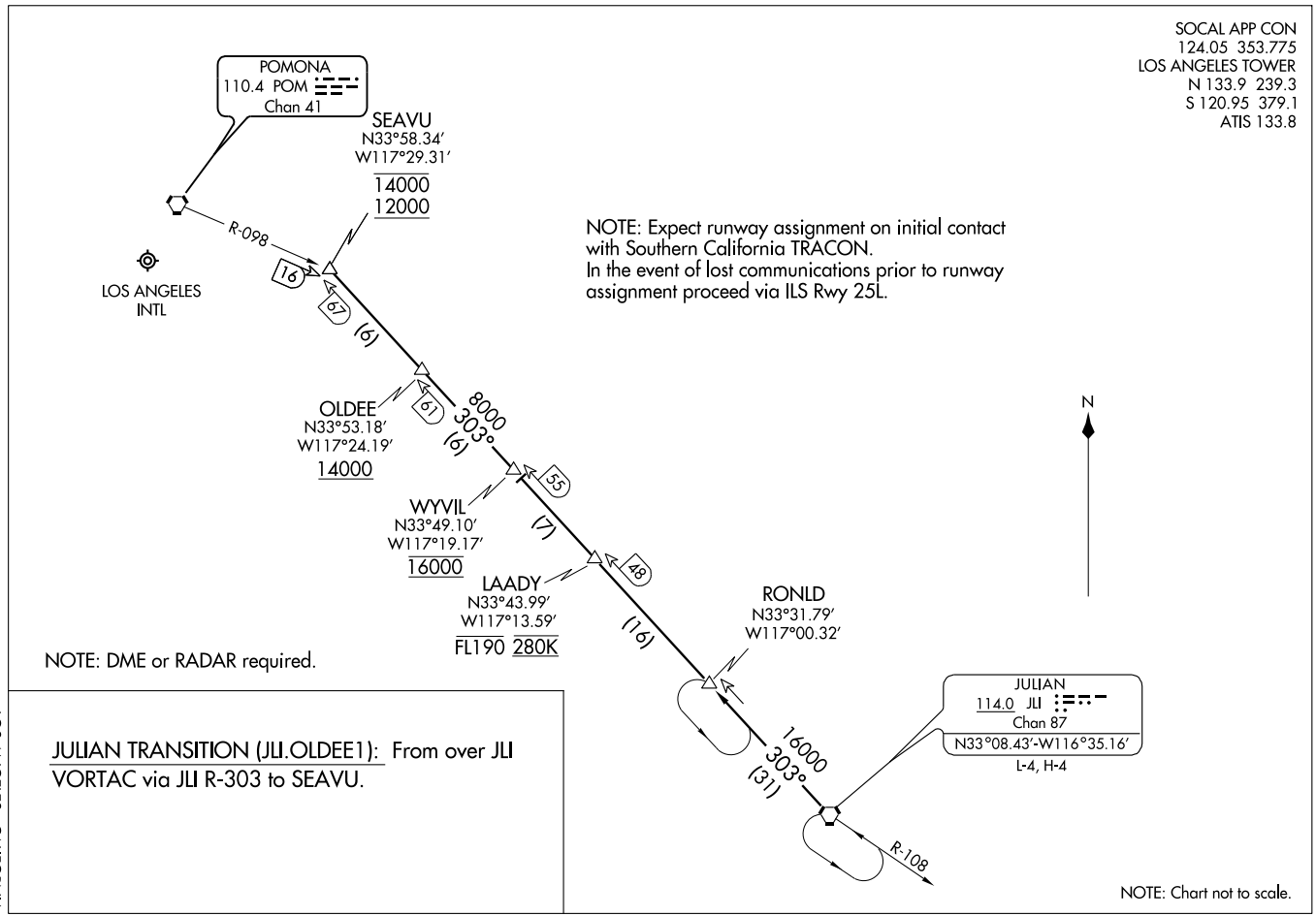


(JLI.OCEAN2) 09351

OCEAN TWO ARRIVAL

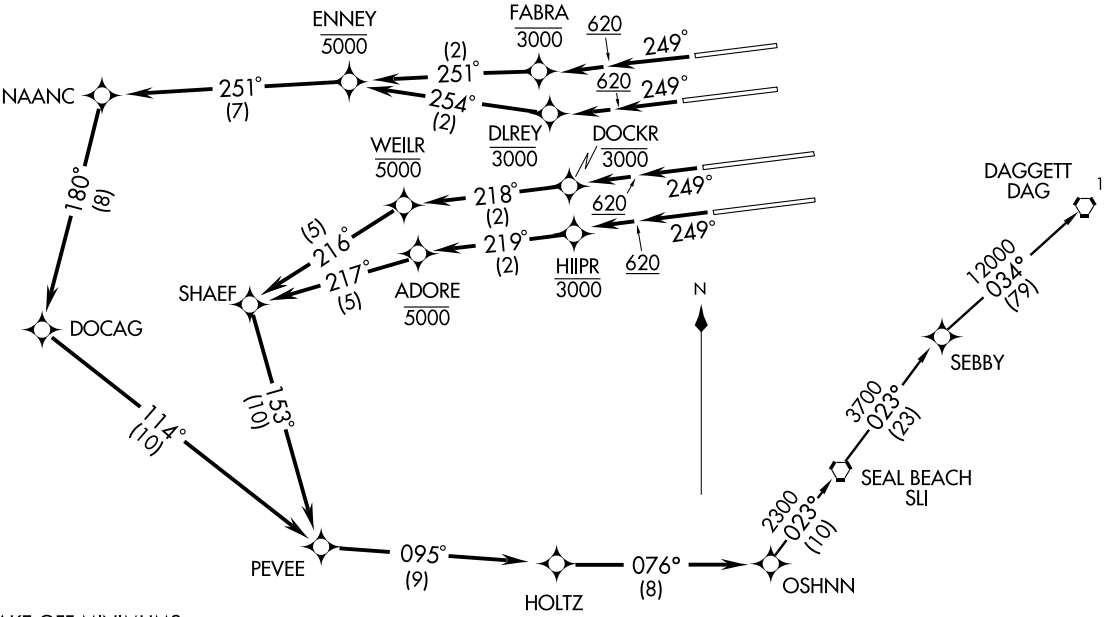
ST-237 (FAA)

LOS ANGELES INTL
LOS ANGELES, CALIFORNIA



(OLDEE.OLDEE1) 09351
OLDEE ONE ARRIVAL
ST-237 (FAA)
LOS ANGELES INTL
LOS ANGELES, CALIFORNIA

NOTE: Chart not to scale.



ATIS 135.65
CLNC DEL 121.4 327.0
GND CON
N 121.65 327.0
S 121.75 327.0
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
SOCAL DEP CON
124.3 363.2 (045°-224°)
125.2 263.025 (225°-044°)

OSHNN THREE DEPARTURE (RNAV) SL-237 (FAA)

(OSHNN3.OSHNN) 09239

LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA

TAKE-OFF MINIMUMS

Rwys 24L/R, 25L/R: Standard with minimum climb of 500′ per NM to 620.
Rwys 6L/R, 7L/R: NA by ATC.

NOTE: 1. DME/DME/IRU or GPS Required.
2. RNAV 1.

NOTE: For non-GPS equipped aircraft departing Rwy 25R or 25L, SLI must be operational.

NOTE: Rwys 24L, 24R departure expect radar vector to PEVEE prior to NAANC.

NOTE: RADAR Required.

(NARRATIVE ON FOLLOWING PAGE)

TAKE-OFF OBSTACLE NOTES

Rwy 24L: Bush 957′ from DER, 601′ left of centerline, 29′ AGL/148′ MSL.
Light pole 273′ from DER, 547′ left of centerline, 12′AGL/120′ MSL.
Light pole 301′ from DER, 425′ left of centerline, 10′ AGL/118′ MSL
Antenna on pole 1358′ from DER, 287′ right of centerline 25′ AGL/144′ MSL.
Bush 240′ feet from DER, 508′ right of centerline, 10′ AGL/116′ MSL.
Light pole 296′ from DER, 321′ right of centerline, 8′ AGL/116′ MSL.
Rwy 24R: OL on glideslope 213′ from DER, 400′ left of centerline, 34′ AGL/151′ MSL.
Rwy 25L: Pole 2366′ from DER, 765′ left of centerline, 55′ AGL/184′ MSL.
T-L tower 2800′ from DER, 993′ left of centerline, 82′ AGL/192′ MSL.
Transmission tower 2856′ from DER, 927′ left of centerline, 82′ AGL/192′ MSL.
Tree 2379′ from DER, 778′ left of centerline, 79′ AGL/197′ MSL.
Bush 134′ from DER, 397′ left of centerline, 5′ AGL/123′ MSL.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 24R: Climb heading 249° to 620, then direct to cross FABRA at or below 3000, then via 251° track to cross ENNEY at or below 5000, then via depicted route to OSHNN, Thence....
TAKE-OFF RUNWAY 24L: Climb heading 249° to 620, then direct to cross DLREY at or below 3000, then via 254° track to cross ENNEY at or below 5000, then via depicted route to OSHNN, Thence....
TAKE-OFF RUNWAY 25R: Climb heading 249° to 620, then direct to cross DOCKR at or below 3000, then via 218° track to cross WEILR at or below 5000, then via depicted route to OSHNN, Thence....
TAKE-OFF RUNWAY 25L: Climb heading 249° to 620, then direct to cross HIIPR at or below 3000, then via 219° track to cross ADORE at or below 5000, then via depicted route to OSHNN, Thence....

. . . . . via DAGGETT TRANSITION. Expect further clearance to filed altitude five minutes after departure.

DAGGETT TRANSITION (OSHNN3.DAG)

PERCH NINE DEPARTURE

SL-237 (FAA)

ATIS DEP 135.65
CLNC DEL
121.4 327.0
GND CON
N 121.65 327.0
S 121.75 327.0
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
SOCAL DEP CON
124.3 363.2 (045°-224°)
125.2 263.025 (225°-044°)

TAKE-OFF MINIMUMS

Rwys 6L, 7L/R, 24L/R, 25L/R: Standard.

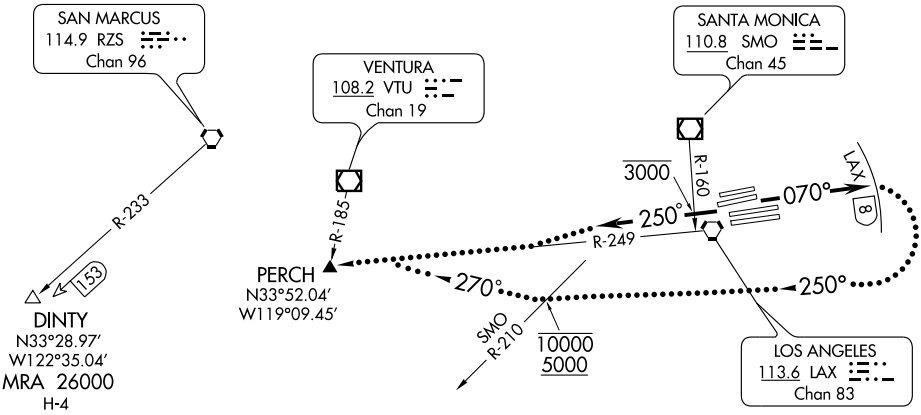
Rwy 6R: 300-1¼ or standard with minimum climb of 231′ per NM to 400′.

NOTE: MRA DINTY DME FL 310 to receive LAX and RZS DME.

NOTE: RZS R-233/153 DME fix DINTY DME FIX MRA 26000.

NOTE: Route depicted is a LOST COMMUNICATION PROCEDURE ONLY.

NOTE: RADAR and DME required.



NOTE: Rwy 6L, building 1813′ from departure end of runway, 942′ left of centerline, 201′ MSL.

NOTE: Rwy 6R, building, 5551′ from departure end of runway, 1790′ right of centerline, 306′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 6L/R, 7L/R: Climb via heading 070° for vector to DINTY INT or FICKY INT. Thence....

TAKE-OFF RUNWAYS 24L/R, 25L/R: Climb via heading 250° to cross SMO R-160 at or below 3000, then via radar vectors to DINTY INT or FICKY INT. Thence ....

....via (assigned route). All aircraft expect further clearance to filed flight level three minutes after departure.

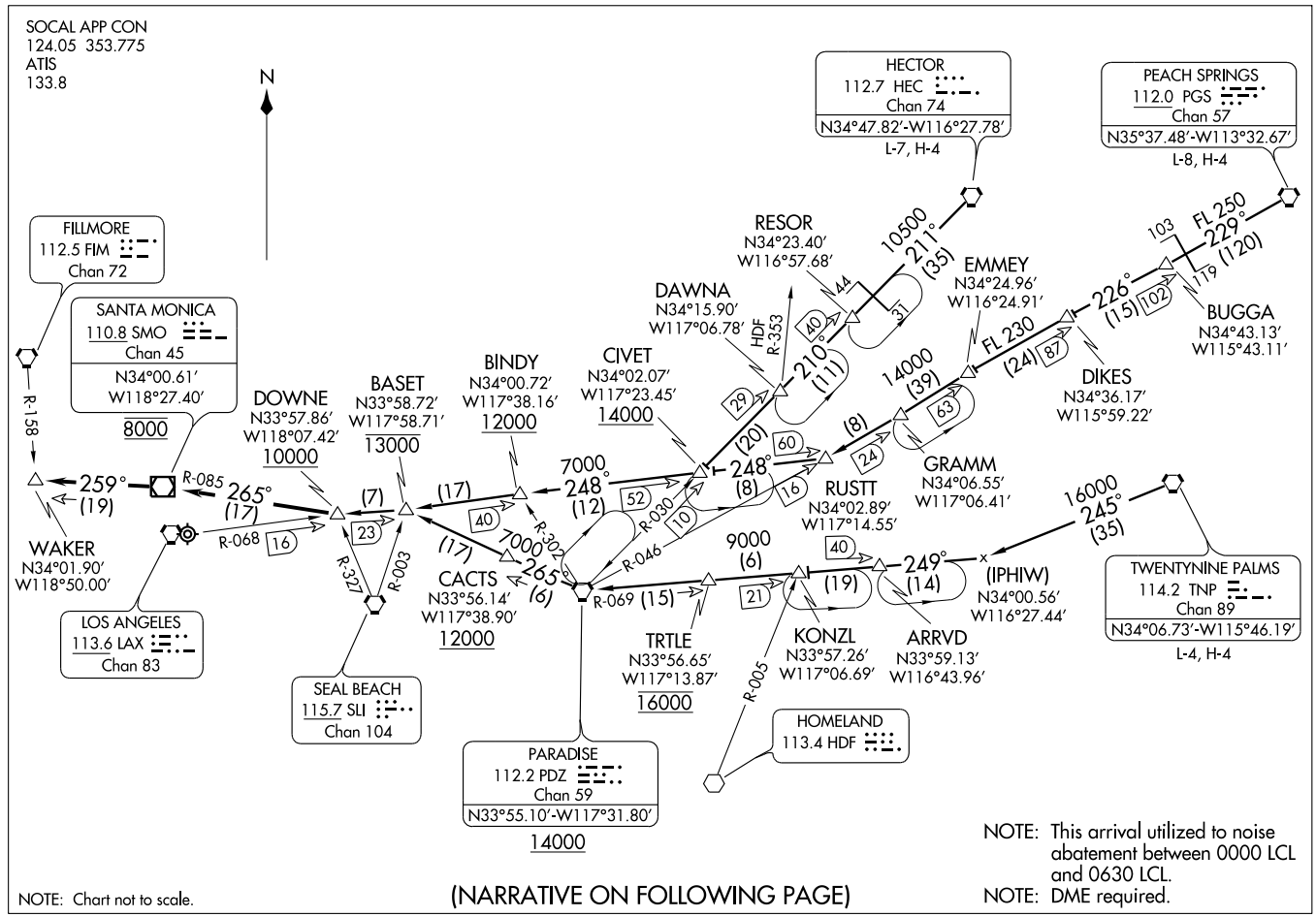
LOST COMMUNICATIONS:

TAKE-OFF RUNWAYS 6L/R, 7L/R: If not in contact with Departure Control upon reaching LAX 8 DME, turn right heading 250°. Cross SMO R-210 at or above 5000′ and at or below 10000′. After leaving 10000′, turn right heading 270° to intercept and proceed via LAX R-249 to PERCH INT.

TAKE-OFF RUNWAYS 24L/R, 25L/R: If not in contact with Departure Control within five minutes after departure, proceed to PERCH INT via LAX R-249.

Climb to FL230 or filed altitude whichever is lower. Aircraft filing FL240 or above climb to filed altitude ten minutes after depature.

SW-3, 14 JAN 2010 to 11 FEB 2010



(DOWNE.RDEYE2) 09351

REDEYE TWO ARRIVAL

ST-237 (FAA)

LOS ANGELES INTL
LOS ANGELES, CALIFORNIA

REDEYE TWO ARRIVAL

ARRIVAL DESCRIPTION

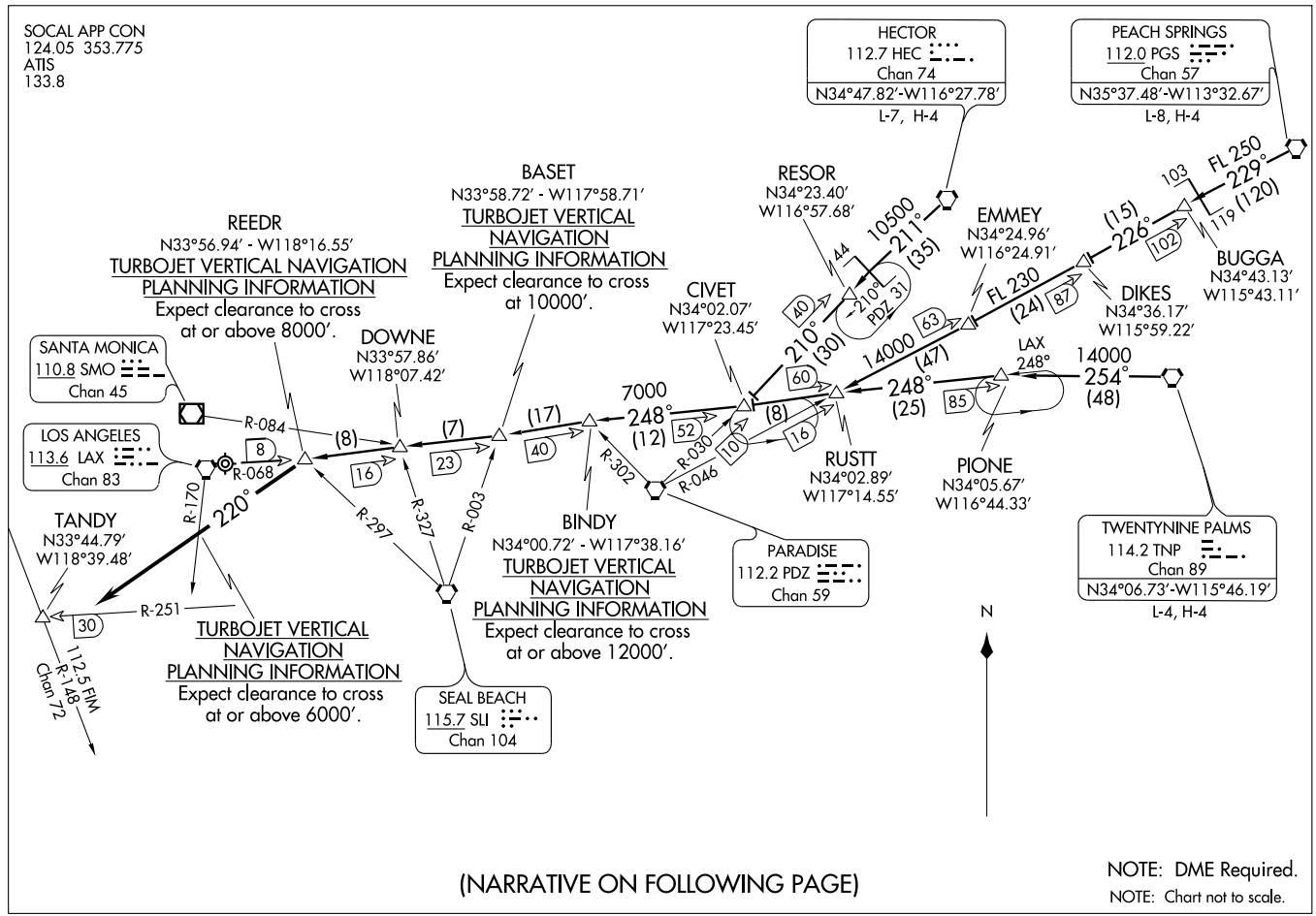
HECTOR TRANSITION (HEC.RDEYE2): From over HEC VORTAC via HEC R-211 and PDZ R-030 to CIVET INT, then LAX R-068 to DOWNE INT. Thence....

PEACH SPRINGS TRANSITION (PGS.RDEYE2): From over PGS VORTAC via PGS R-229 and PDZ R-046 to RUSTT INT, then LAX R-068 to DOWNE INT. Thence....

TWENTYNINE PALMS TRANSITION (TNP.RDEYE2): From over TNP VORTAC via TNP R-245 and PDZ R-069 to PDZ VORTAC, then PDZ R-265 to BASET INT, then LAX R-068 to DOWNE INT. Thence....

....From DOWNE INT via SMO R-085 to SMO VOR/DME, then via SMO R-259 to WAKER INT. Expect vector to final approach course for runways 6 and 7.

SW-3, 14 JAN 2010 to 11 FEB 2010



(REEDR.REEDR3) 09351

REEDR THREE ARRIVAL

ST-237 (FAA)

LOS ANGELES INTL
LOS ANGELES, CALIFORNIA

ARRIVAL DESCRIPTION

HECTOR TRANSITION (HEC.REEDR3): From over HEC VORTAC via HEC R-211 and PDZ R-030 to CIVET INT, then LAX R-068 to REEDR INT. Thence....
PEACH SPRINGS TRANSITION (PGS.REEDR3): From over PGS VORTAC via PGS R-229 and PDZ R-046 to RUSTT INT, then LAX R-068 to REEDR INT. Thence....
TWENTYNINE PALMS TRANSITION (TNP.REEDR3): From over TNP VORTAC via TNP R-254 to PIONE INT, then LAX R-068 to REEDR INT. Thence....
....From over REEDR INT via heading 220° for radar vector to final approach course for Runways 6 or 7.

LOST COMMUNICATIONS: Depart REEDR INT heading 220° to intercept the SLI R-251 to TANDY INT/SLI 30 DME.

SW-3. 14 JAN 2010 to 11 FEB 2010

NOTE: DME or RADAR required.

NOTE: Expect runway assignment on initial contact with Southern California TRACON. In the event of lost communications prior to runway assignment, proceed via ILS RWY 25L.

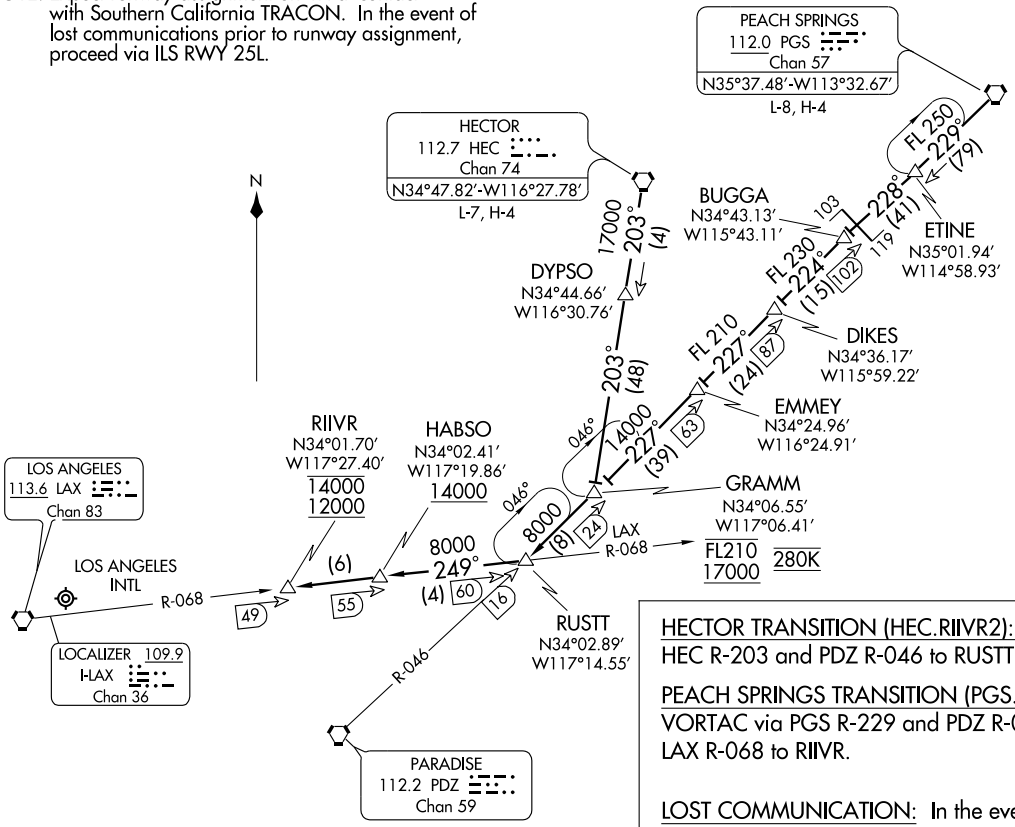
SOCAL APP CON
124.05 353.775
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
ATIS 133.8

RIIVR TWO ARRIVAL (RIIVR.RIIVR2)

09351

ST-237 (FAA)

LOS ANGELES INTL
LOS ANGELES, CALIFORNIA



NOTE: Chart not to scale.

HECTOR TRANSITION (HEC.RIIVR2): From over HEC VORTAC via HEC R-203 and PDZ R-046 to RUSTT, then via LAX R-068 to RIIVR.

PEACH SPRINGS TRANSITION (PGS.RIIVR2): From over PGS VORTAC via PGS R-229 and PDZ R-046 to RUSTT, then via LAX R-068 to RIIVR.

LOST COMMUNICATION: In the event of lost communications prior to runway assignment proceeed via ILS Rwy 25L.

WAAS	APP CRS	Rwy Idg	8925
CH 82507	069°	TDZE	117
W06A		Apt Elev	126

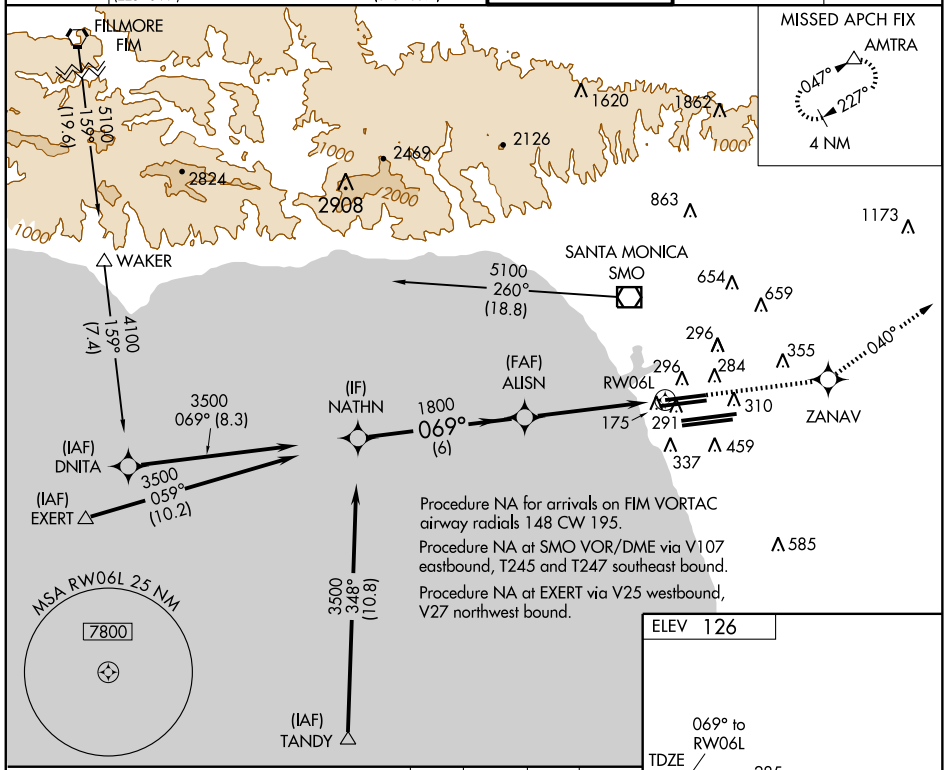
RNAV (GPS) Y RWY 6L
LOS ANGELES INTL (LAX)

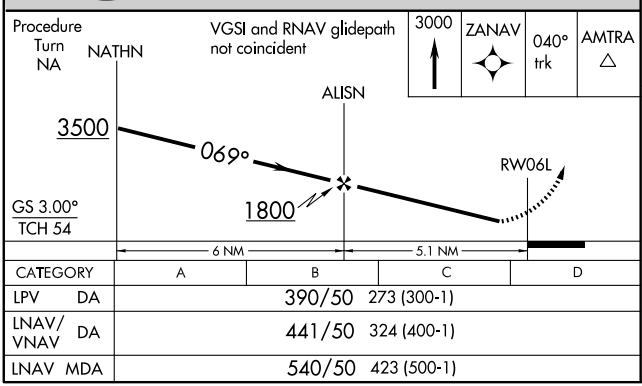
T W Inoperative table does not apply to LPV, LNAV/VNAV, and LNAV Cat A and B. For inoperative MALSR, increase LNAV Cat C and D visibility to RVR 6000. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

MALSR

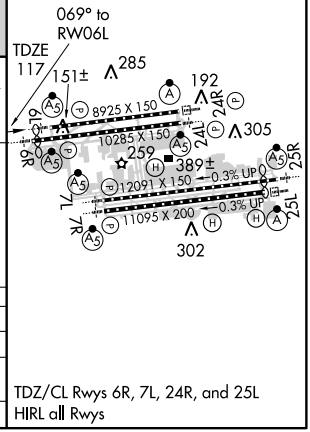
MISSED APPROACH: Climb to 3000 direct ZANAV and via 040° track to AMTRA and hold.

ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	





CATEGORY	A	B	C	D
LPV DA	390/50	273 (300-1)		
LNAV/VNAV DA	441/50	324 (400-1)		
LNAV MDA	540/50	423 (500-1)		



TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	9954
CH 61207	069°	TDZE	114
W06B		Apt Elev	126

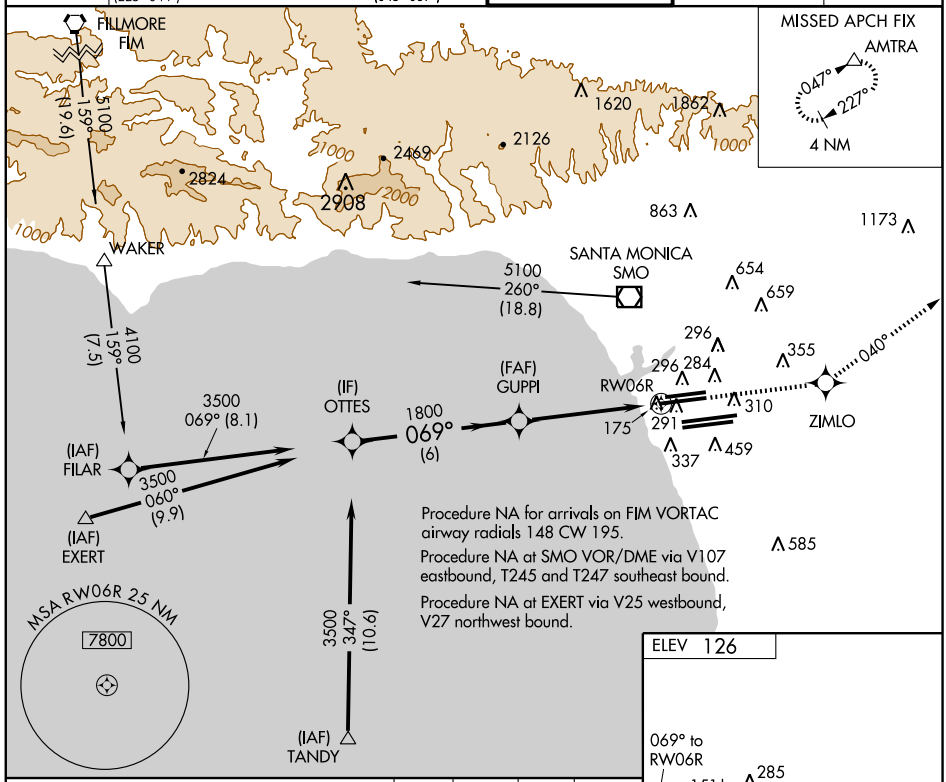
RNAV (GPS) Y RWY 6R
LOS ANGELES INTL (LAX)

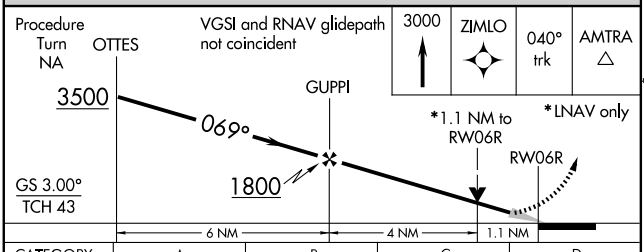
For inoperative MALSR, increase LPV all Cats and LNAV/VNAV Cat D visibility to RVR 5000, and increase LNAV Cat D visibility to RVR 6000.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA.

MALSR

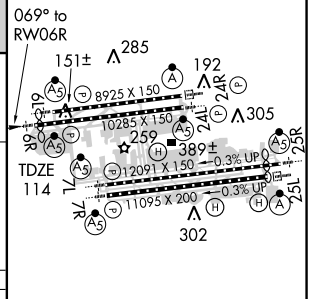
MISSED APPROACH: Climb to 3000 direct ZIMLO and via 040° track to AMTRA and hold.

ATIS				LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)	SOCAL APP CON	124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	





CATEGORY	A	B	C	D
LPV DA	364/24 250 (300-½)			
LNAV/VNAV DA	425/24 311 (300-½)			425/40 311 (300-¾)
LNAV MDA	520/24 406 (400-½)		520/40 406 (400-¾)	520/50 406 (400-1)



TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS CH 42504 W07A	APP CRS 069°	Rwy Idg 12091 TDZE 126 Apt Elev 126

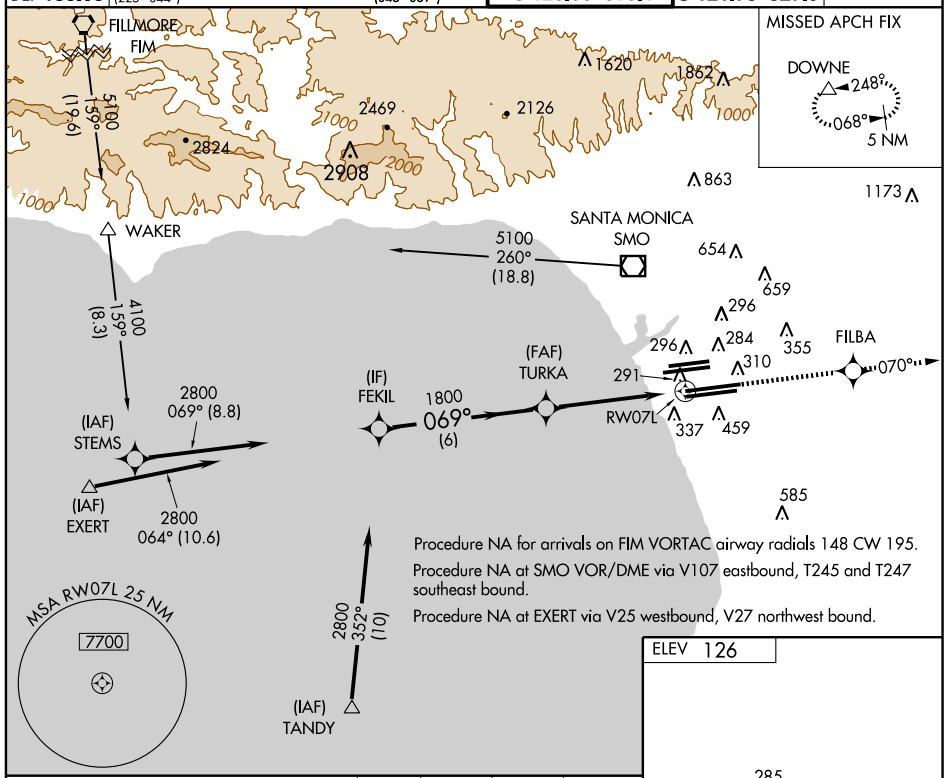
RNAV (GPS) Y RWY 7L
LOS ANGELES INTL (LAX)

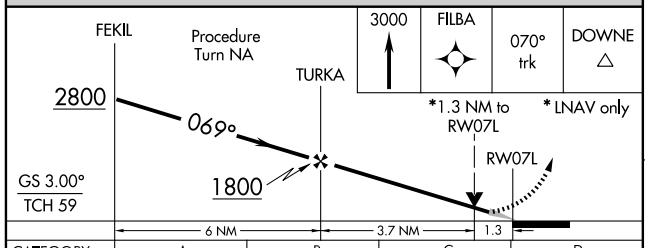
T For inoperative MALSR, increase LPV all Cats visibility to RVR 5000.
W For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP -0.3 NA.

MALSR

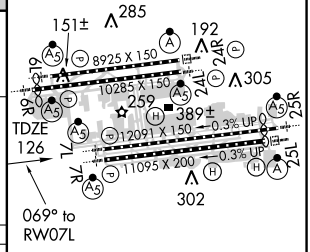
MISSED APPROACH: Climb to 3000 direct FILBA then via 070° track to DOWNE and hold.

ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	





CATEGORY	A	B	C	D
LPV DA	432/24 306 (400-½)			
LNAV/VNAV DA	582/50 456 (500-1)			
LNAV MDA	600/24 474 (500-½)		600/40 474 (500-¾)	600/50 474 (500-1)



WAAS	APP CRS	Rwy Idg	11095
CH 69603	069°	TDZE	125
W07B		Apt Elev	126

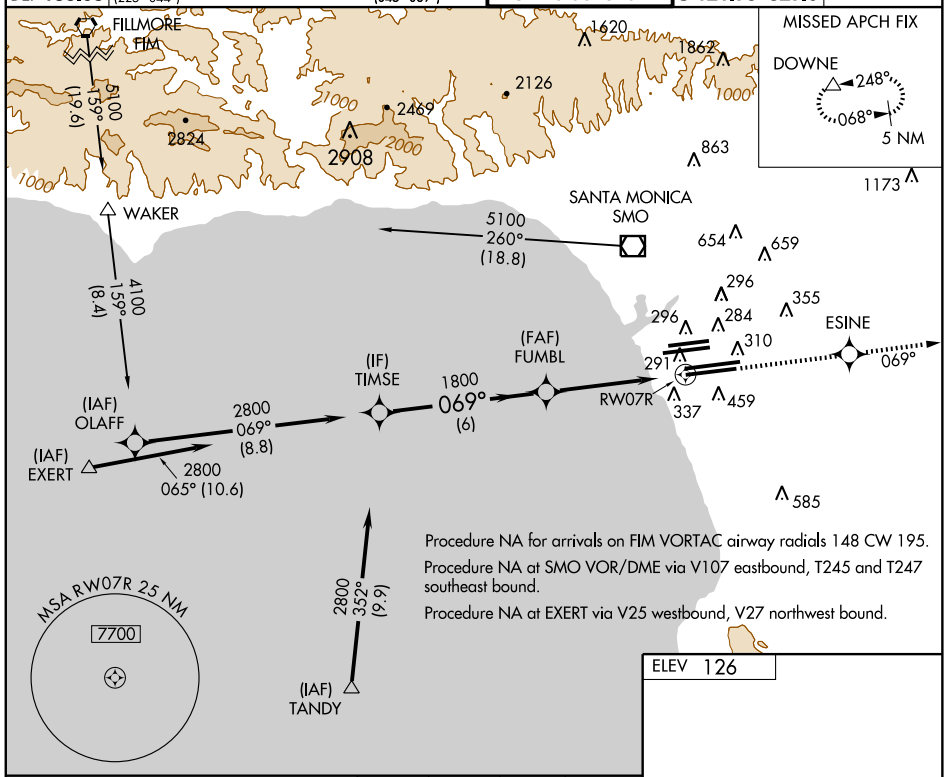
RNAV (GPS) Y RWY 7R
LOS ANGELES INTL (LAX)

T W For inoperative MALSR, increase LPV all Cats. visibility to RVR 5000. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA.

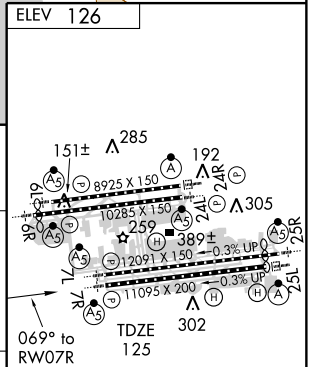
MALSR (A5)

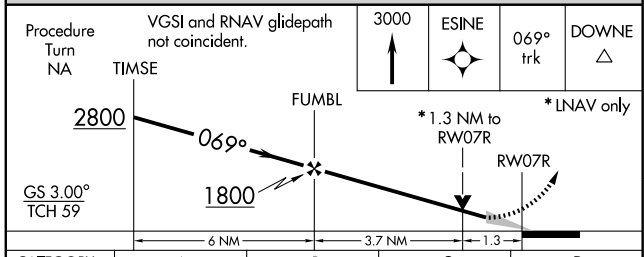
MISSED APPROACH: Climb to 3000 direct ESINE and via 069° track to DOWNE and hold.

ATIS				LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)	SOCAL APP CON	124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	



ELEV 126





CATEGORY	A	B	C	D
LPV DA	417/24 292 (300-½)			
LNAV/VNAV DA	582/50 457 (500-1)			
LNAV MDA	600/24 475 (500-½)		600/40 475 (500-¾)	600/50 475 (500-1)

TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	10285
CH 56407	249°	TDZE	121
W24B		Apt Elev	126

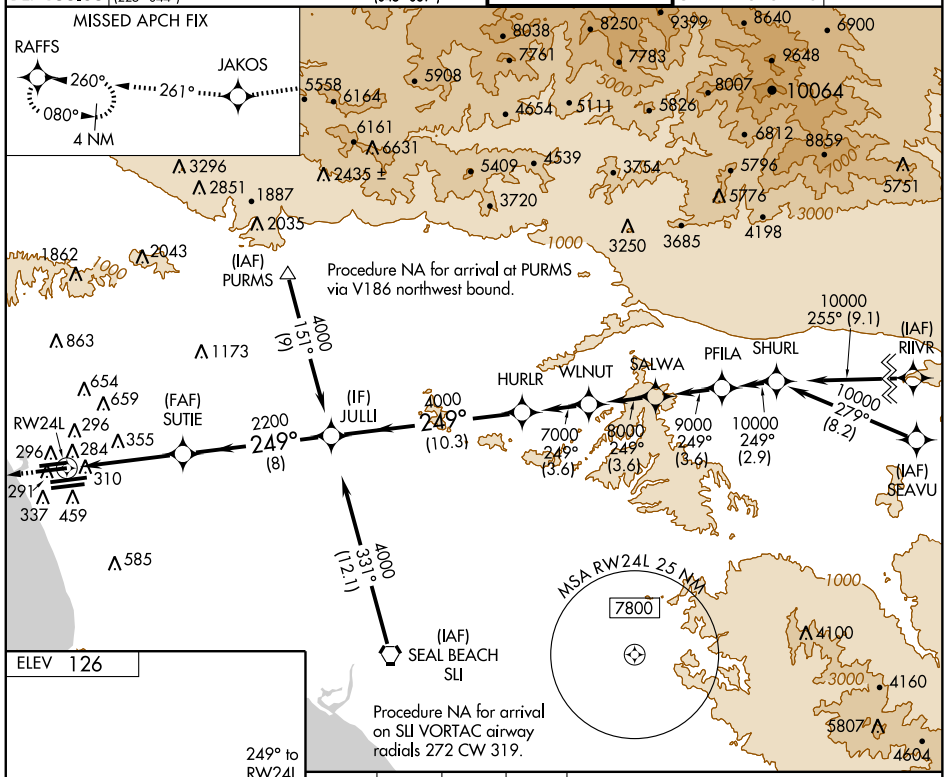
RNAV (GPS) Y RWY 24L
LOS ANGELES INTL (LAX)

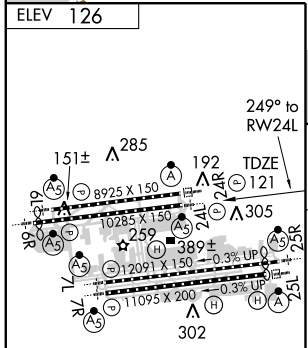
T For inoperative MALSR, increase LPV all Cats visibility to RVR 6000.
W For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP- 0.3 NA.

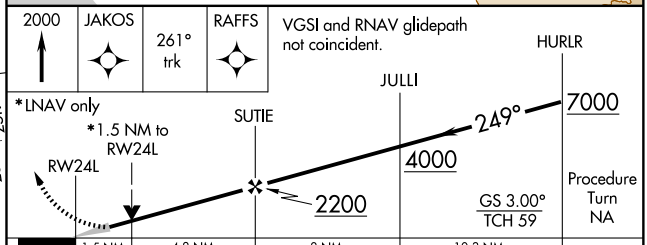
MALSR

MISSED APPROACH: Climb to 2000 direct JAKOS and via 261° track to RAFFS and hold.

ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	







CATEGORY	A	B	C	D
LPV DA	469/40 348 (400-¾)			
LNAV/VNAV DA	606/60 485 (500-1¼)			
LNAV MDA	660/24 539 (600-½)		660/50 539 (600-1)	660/60 539 (600-1¼)

TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

WAAS	APP CRS	Rwy Idg	8925
CH 69307	249°	TDZE	120
W24A		Apt Elev	126

RNAV (GPS) Y RWY 24R
LOS ANGELES INTL (LAX)

DME/DME RNP- 0.3 NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F).

ALSF-2

MISSED APPROACH: Climb to 2000 direct IGUPE and via 261° track to RAFFS and hold.

ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	

MISSED APCH FIX
RAFFS
260°
080°
4 NM
261°
IGUPE

Procedure NA for arrivals at PURMS via V186 northwest bound.

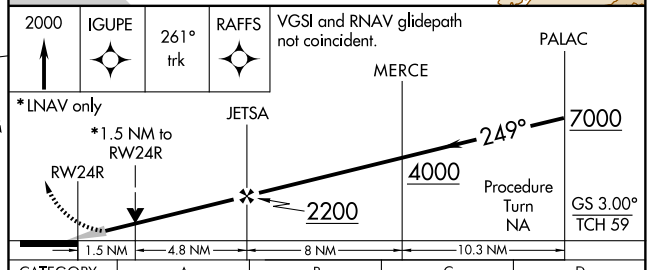
(IAF) PURMS
4000 151° (8)
(IF) MERCE
4000 249° (10.3)
2200 249° (8)
(FAF) JETSA
RW24R
PALAC
BREEA
DECOR
SKOLL
MINZA
10000 256° (9.3)
(IAF) RIIVR
7000 249° (3.6)
8000 249° (3.6)
9000 249° (3.6)
10000 249° (2.8)
10000 279° (8.4)
(IAF) SEAVU

MSA RW24R 25 NM
7800

4000 331° (12.3)
(IAF) SEAL BEACH SLI

Procedure NA for arrival on SLI VORTAC airway radials 272 CW 319.

ELEV 126
TDZE 120
249° to RW24R
8925 X 150
10285 X 150
12091 X 150 -0.3% UP
11095 X 200 -0.3% UP



CATEGORY	A	B	C	D
LPV DA	374/24 254 (300-½)			
LNAV/VNAV DA	604/60 484 (500-1¼)			
LNAV MDA	660/24 540 (600-½)		660/50 540 (600-1)	660/60 540 (600-1¼)

TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	11095
CH 53507	249°	TDZE	104
W25A		Apt Elev	126

RNAV (GPS) Y RWY 25L

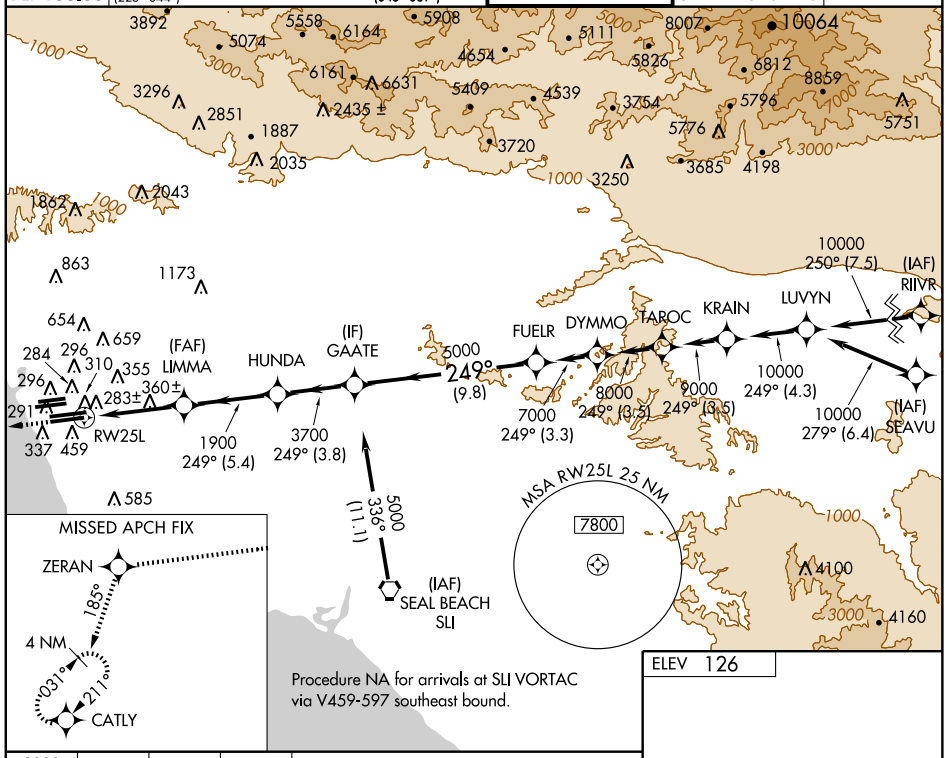
LOS ANGELES INTL (LAX)

For inoperative ALSF-2, increase LPV all Cats. visibility to RVR 5000. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP- 0.3 NA.

ALSF-2

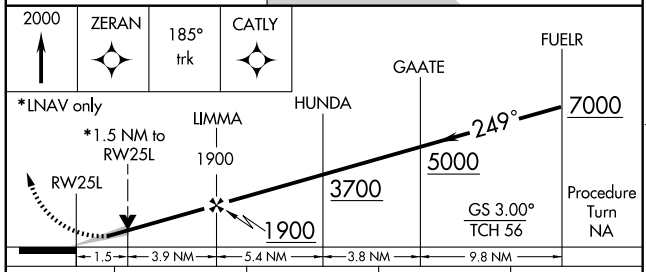
MISSED APPROACH: Climb to 2000 direct ZERAN and via 185° track to CATLY and hold.

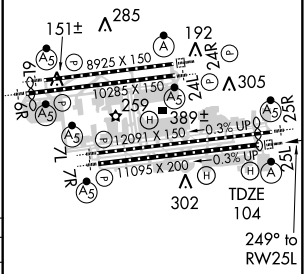
ATIS			LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST) SOCAL APP CON 124.9 269.0 (090°-224°)		N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)	128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	



Procedure NA for arrivals at SLI VORTAC via V459-597 southeast bound.

ELEV 126





CATEGORY	A	B	C	D
LPV DA	365/24 261 (300-½)			
LNAV/VNAV DA	575/60 471 (500-1¼)			
LNAV MDA	640/24 536 (600-½)		640/50 536 (600-1)	640/60 536 (600-1¼)

TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	11134
CH 49007	249°	TDZE	102
W25B		Apt Elev	126

RNAV (GPS) Y RWY 25R

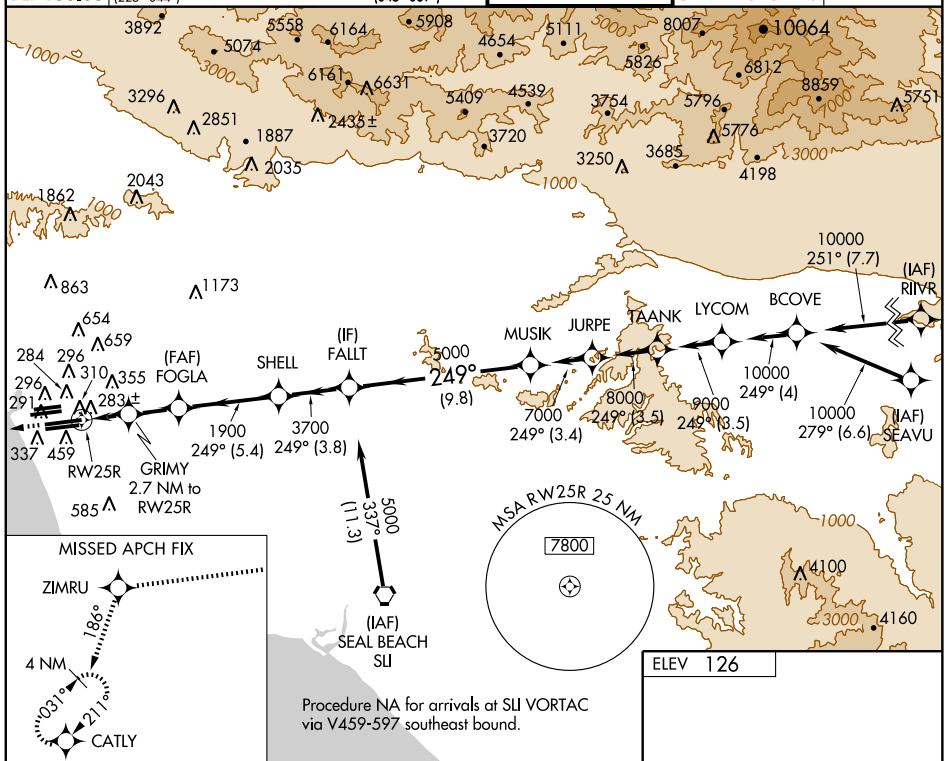
LOS ANGELES INTL (LAX)

For inoperative MALSR, increase LPV all Cats visibility to RVR 5000. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA.

MALSR

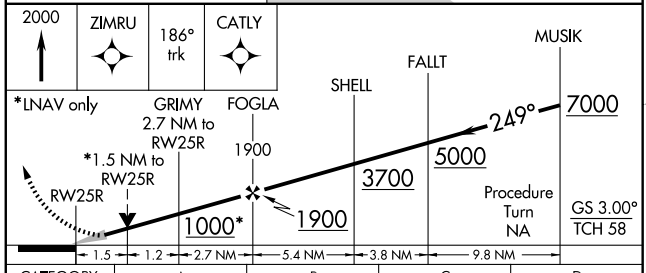
MISSED APPROACH: Climb to 2000 direct ZIMRU and via 186° track to CATLY and hold.

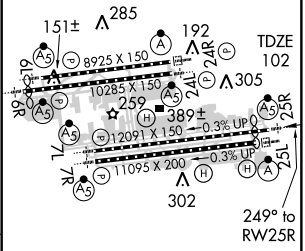
ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	



Procedure NA for arrivals at SLI VORTAC via V459-597 southeast bound.

ELEV 126





CATEGORY	A	B	C	D
LPV DA	369/24 267 (300-½)			
LNAV/VNAV DA	576/60 474 (500-1¼)			
LNAV MDA	640/24 538 (600-½)		640/50 538 (600-1)	640/60 538 (600-1¼)

TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	8925
069°	TDZE	117
	Apt Elev	126

RNAV (RNP) Z RWY 6L

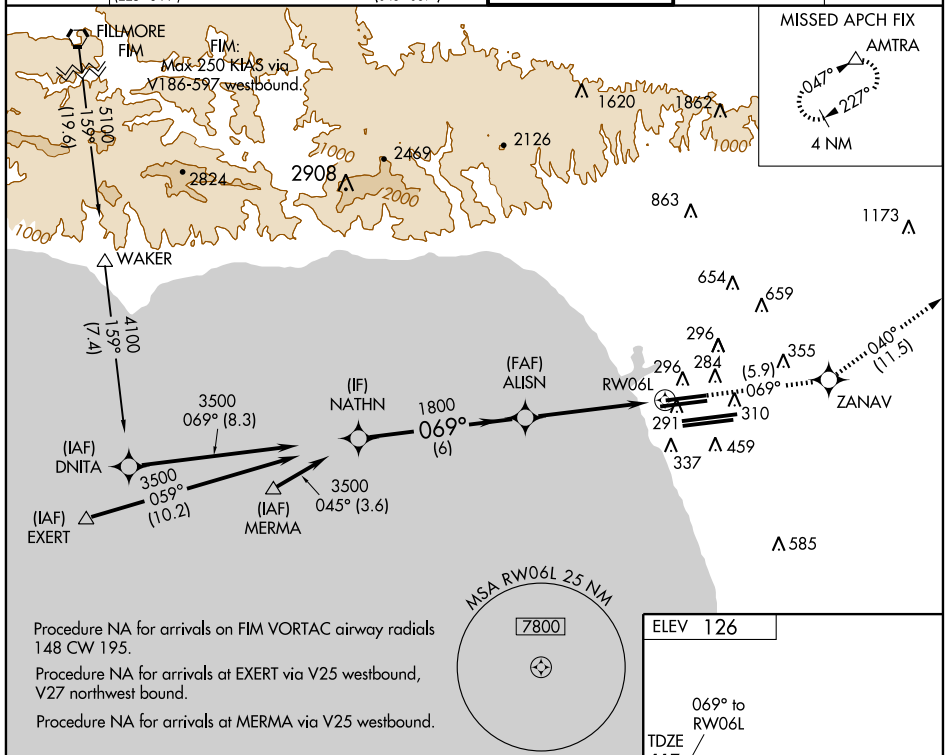
LOS ANGELES INTL (LAX)

GPS required.
NA For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F), or above 48°C (119°F).
Inoperative table does not apply.
Visiblity reduction by helicopters NA.

MALSR

MISSED APPROACH: Climb to 3000 via 069° track to ZANAV and via 040° track to AMTRA and hold.

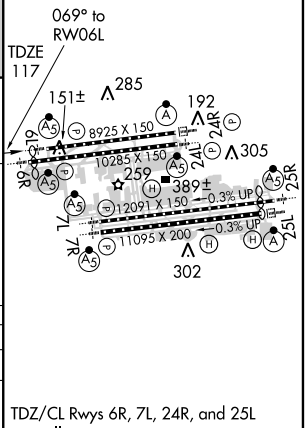
ATIS	ARR 133.8 DEP 135.65	SOCAL APP CON	124.3 363.2 (APCH FM WEST) 124.5 235.975 (225°-044°) 124.9 269.0 (090°-224°) 128.5 360.7 (045°-089°)	LOS ANGELES TOWER	N 133.9 239.3 S 120.95 379.1	GND CON	N 121.65 327.0 S 121.75 327.0	CLNC DEL	121.4 327.0

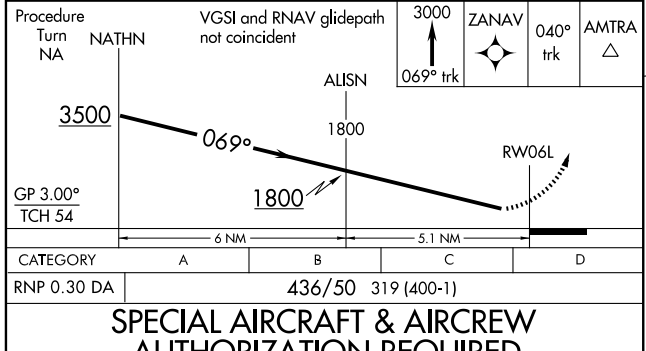


Procedure NA for arrivals on FIM VORTAC airway radials 148 CW 195.

Procedure NA for arrivals at EXERT via V25 westbound, V27 northwest bound.

Procedure NA for arrivals at MERMA via V25 westbound.





CATEGORY	A	B	C	D
RNP 0.30 DA	436/50	319 (400-1)		

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	9954
069°	TDZE	114
	Apt Elev	126

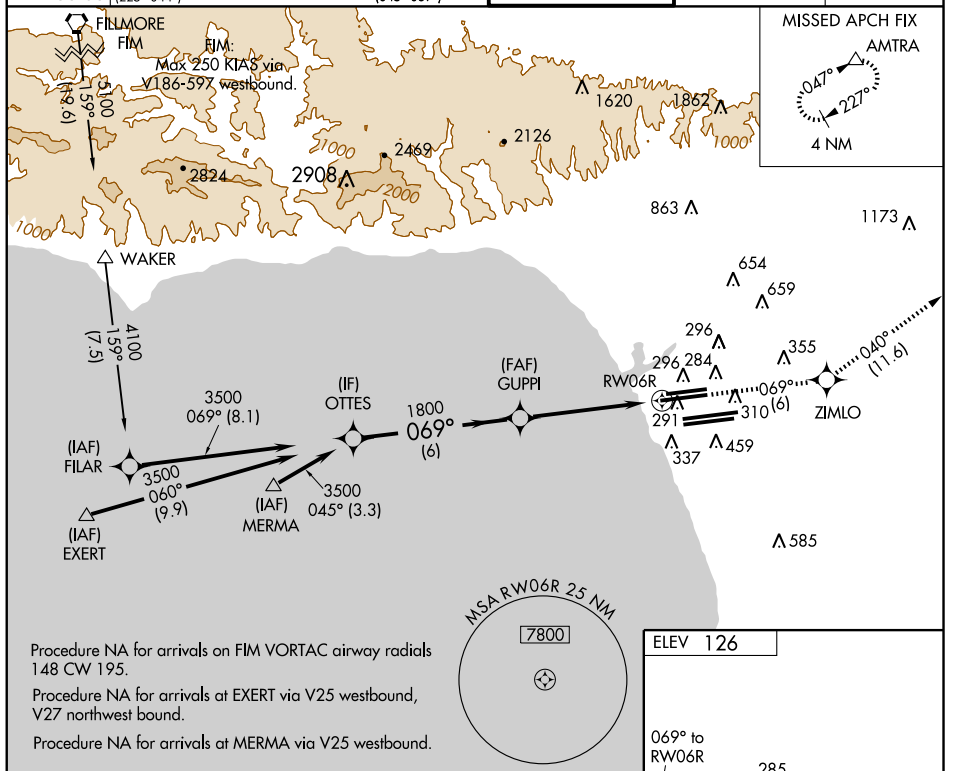
RNAV (RNP) Z RWY 6R
LOS ANGELES INTL (LAX)

T NA GPS required. Visibility reduction by helicopters NA.
For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F), or above 48°C (119°F).
For inoperative MALSR, increase RNP 0.30 visibility to RVR 5000 all Cats.

MALSR

MISSED APPROACH: Climb to 3000 via 069° track to ZIMLO and via 040° track to AMTRA and hold.

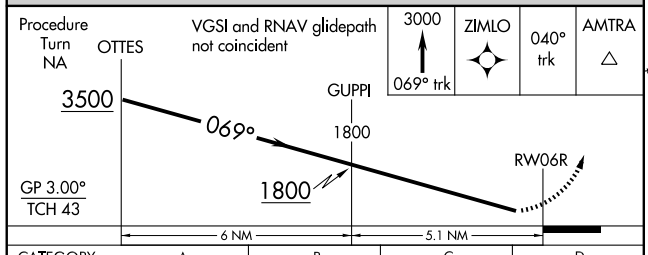
ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	



Procedure NA for arrivals on FIM VORTAC airway radials 148 CW 195.

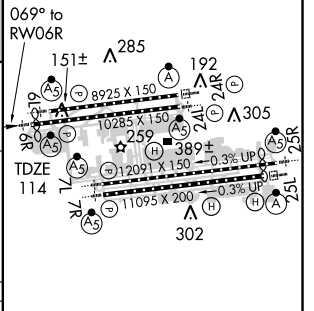
Procedure NA for arrivals at EXERT via V25 westbound, V27 northwest bound.

Procedure NA for arrivals at MERMA via V25 westbound.



CATEGORY	A	B	C	D
RNP 0.30 DA	413/40	299 (300-¾)		

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED



TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	12091
069°	TDZE	126
	Apt Elev	126

RNAV (RNP) Z RWY 7L

LOS ANGELES INTL (LAX)

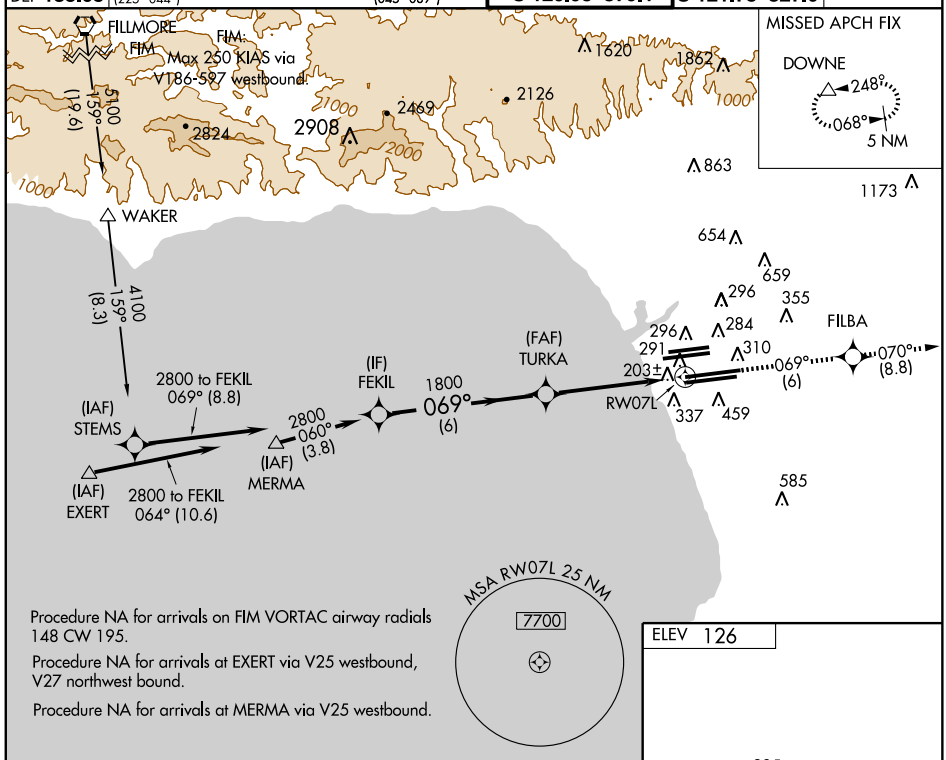
NA

GPS required.
For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F), or above 48°C (118°F).
For inoperative MALSR, increase RNP 0.12 visibility to RVR 5000 and RNP 0.30 visibility to RVR 6000.

MALSR

MISSED APPROACH: Climb to 3000 via 069° track to FILBA and via 070° track to DOWNE and hold.

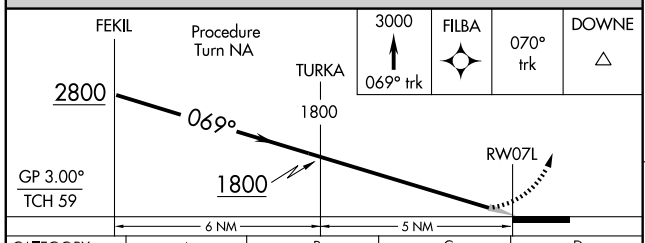
ATIS	ARR 133.8	DEP 135.65
124.3 363.2 (APCH FM WEST)	124.5 235.975 (225°-044°)	SOCAL APP CON
124.9 269.0 (090°-224°)	128.5 360.7 (045°-089°)	
LOS ANGELES TOWER	N 133.9 239.3	S 120.95 379.1
GND CON	N 121.65 327.0	S 121.75 327.0
CLNC DEL	121.4 327.0	



Procedure NA for arrivals on FIM VORTAC airway radials 148 CW 195.

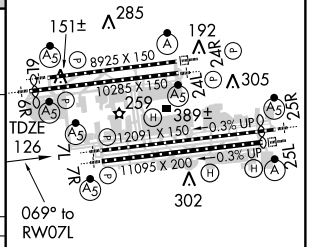
Procedure NA for arrivals at EXERT via V25 westbound, V27 northwest bound.

Procedure NA for arrivals at MERMA via V25 westbound.



CATEGORY	A	B	C	D
RNP 0.12 DA		440/24	314 (400-½)	
RNP 0.30 DA		483/40	357 (400-¾)	

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED



TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	11095
069°	TDZE	125
	Apt Elev	126

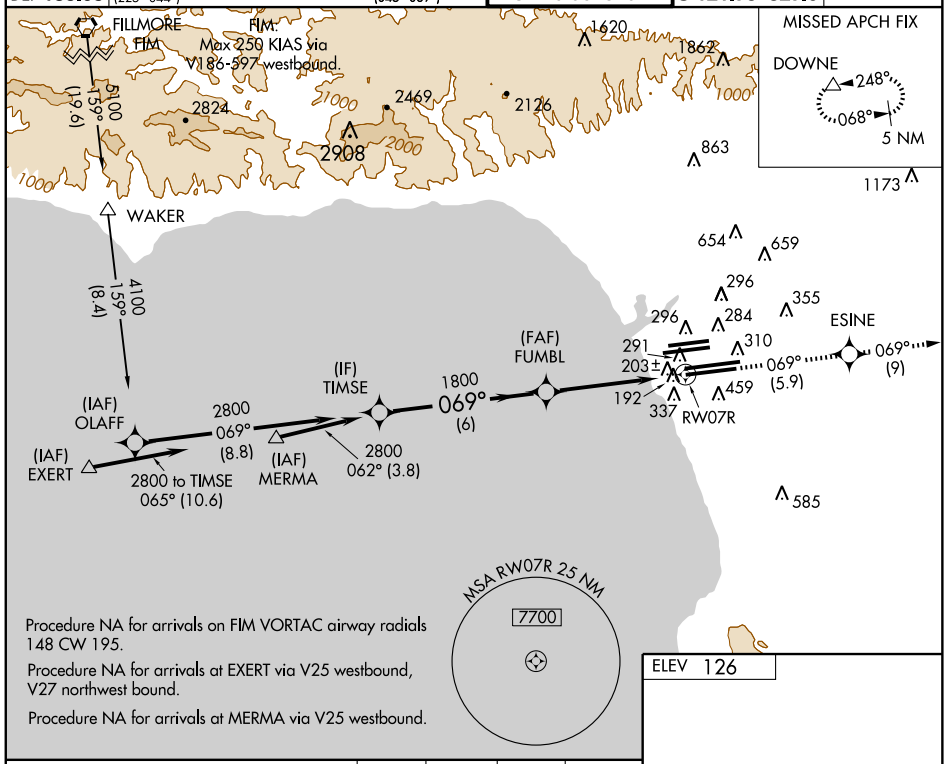
RNAV (RNP) Z RWY 7R
LOS ANGELES INTL (LAX)

NA — For inoperative MALSR, increase RNP 0.12 visibility to RVR 5000 all Cats., and RNP 0.30 visibility to RVR 6000 all Cats. For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 48°C (119°F). GPS Required.

MALSR

MISSED APPROACH: Climb to 3000 via 069° track to ESINE and 069° track to DOWNE and hold.

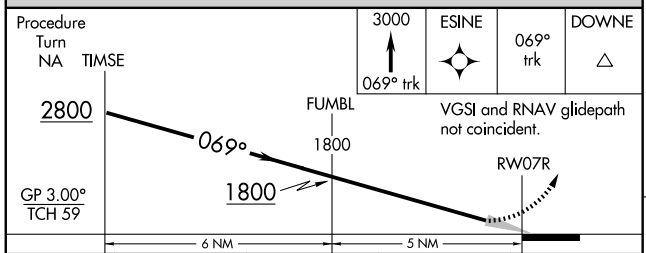
ATIS			GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)	SOCAL APP CON 124.9 269.0 (090°-224°)	LOS ANGELES TOWER N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)	128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	



Procedure NA for arrivals on FIM VORTAC airway radials 148 CW 195.

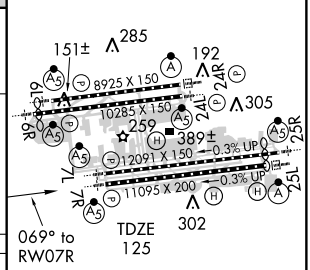
Procedure NA for arrivals at EXERT via V25 westbound, V27 northwest bound.

Procedure NA for arrivals at MERMA via V25 westbound.



CATEGORY	A	B	C	D
RNP 0.12 DA	418/24	293 (300-½)		
RNP 0.30 DA	483/40	358 (400-¾)		

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED



TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	10285
249°	TDZE	121
	Apt Elev	126

RNAV (RNP) Z RWY 24L
LOS ANGELES INTL (LAX)

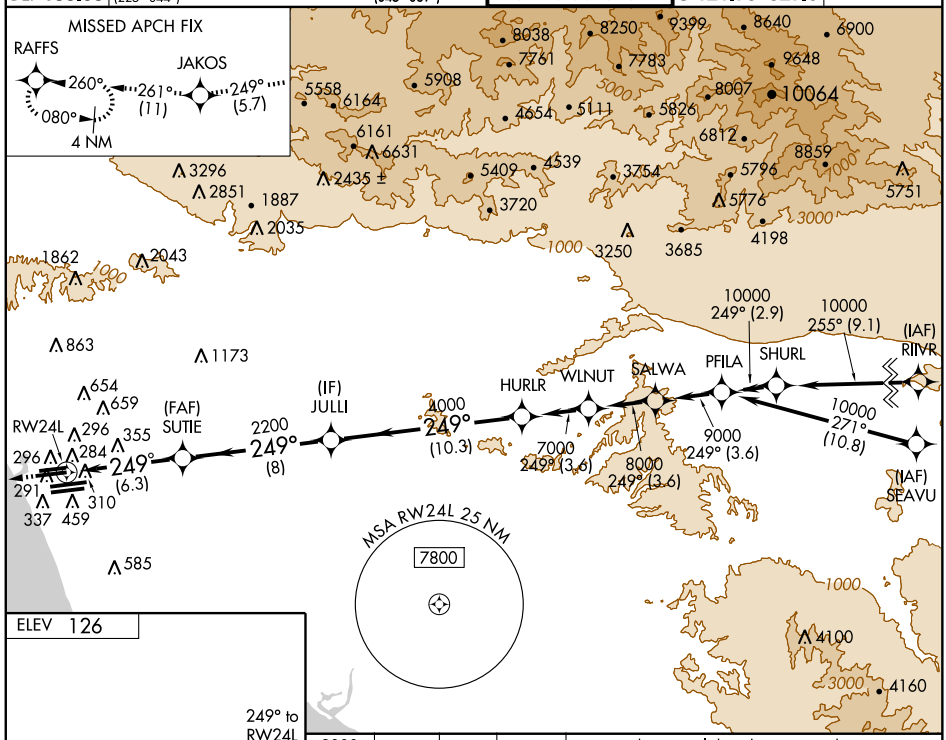
▼ NA — For inoperative MALSR, increase visibility RNP 0.15 and RNP 0.30 all Cats to 1½.
For uncompensated Baro-VNAV systems, procedure NA below 5°C (40°F) or above 48°C (119°F).
Visibility reduction by helicopters NA. GPS required.

MALSR

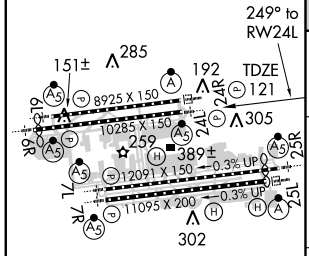
MISSED APPROACH: Climb to 2000 via 249° track to JAKOS and via 261° track to RAFFS and hold.

ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	

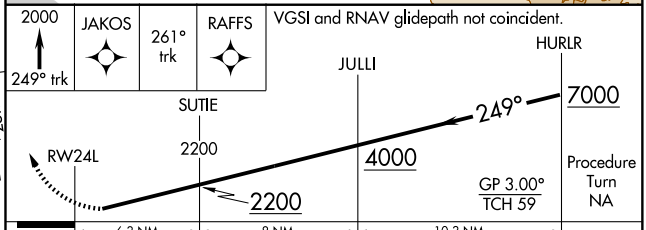
MISSED APCH FIX
RAFFS
260°
080°
4 NM
261° (11)
JAKOS
249° (5.7)



ELEV 126



TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys



CATEGORY	A	B	C	D
RNP 0.15 DA	538/50 417 (500-1)			
RNP 0.30 DA	582/60 461 (500-1¼)			

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

APP CRS	Rwy Idg	8925
249°	TDZE	120
	Apt Elev	126

RNAV (RNP) Z RWY 24R

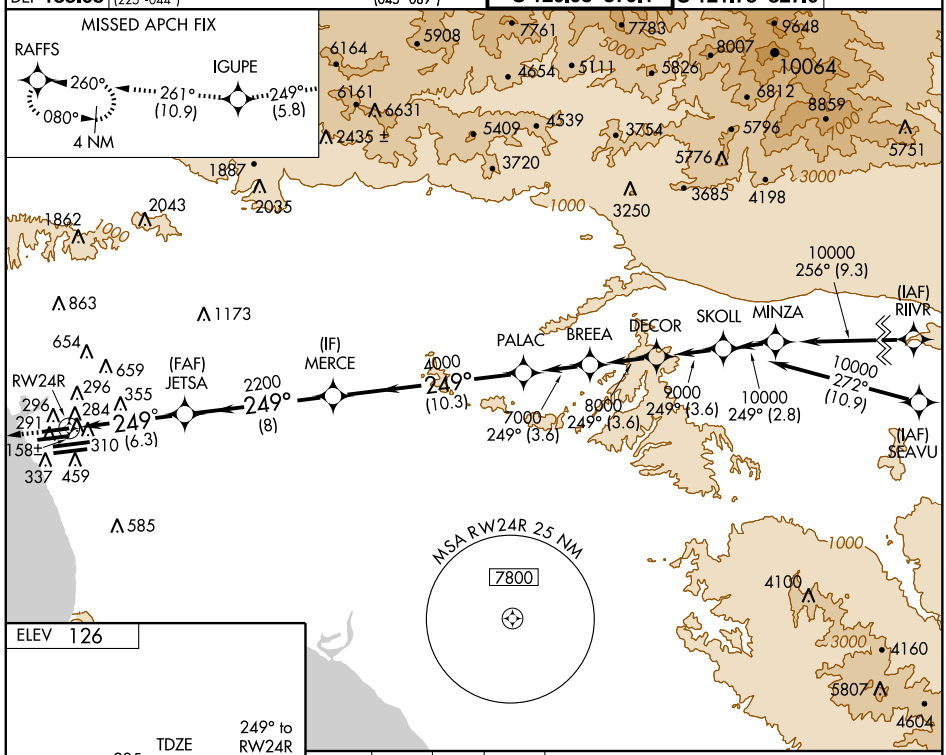
LOS ANGELES INTL (LAX)

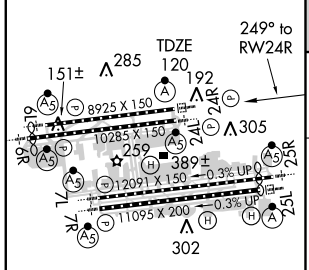
For uncompensated Baro-VNAV systems, procedure NA below 5°C (40°F) or above 48°C (119°F).
For inoperative ALSF-2 increase RNP 0.16 visibility to RVR 6000 and RNP 0.30 to 1½ miles.
GPS required. Visibility reduction by helicopters NA.

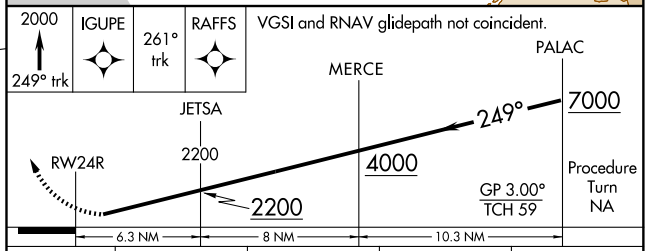
ALSF-2

MISSED APPROACH: Climb to 2000 via 249° track to IGUPE and via 261° track to RAFFS and hold.

ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	







CATEGORY	A	B	C	D
RNP 0.16 DA	485/40 365 (400-¾)			
RNP 0.30 DA	584/60 464 (500-1¼)			

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	11095
249°	TDZE	104
	Apt Elev	126

RNAV (RNP) Z RWY 25L

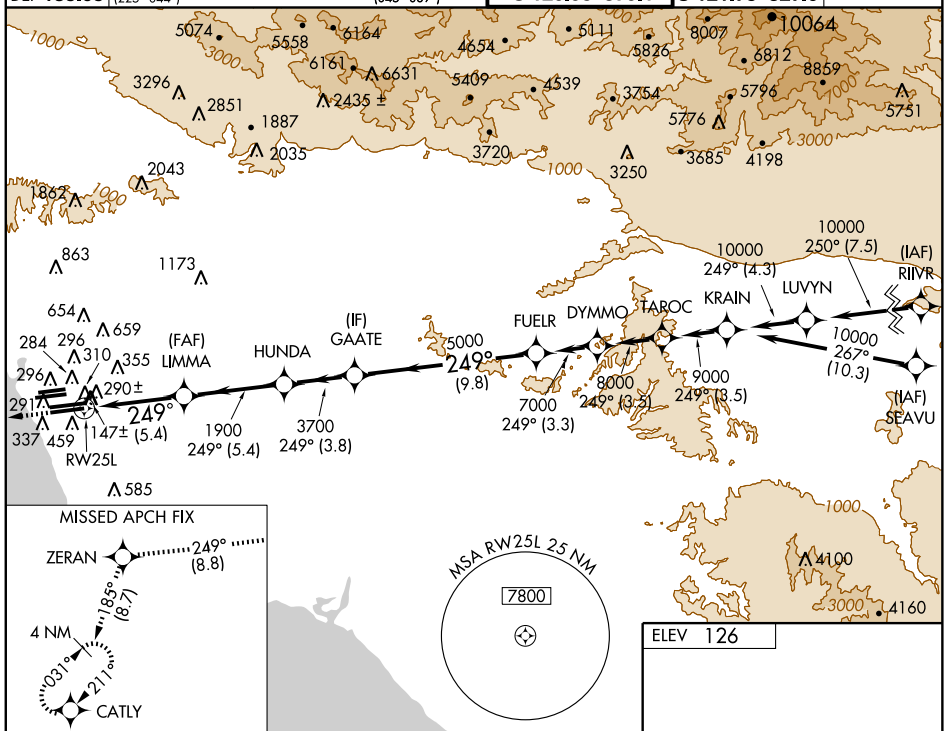
LOS ANGELES INTL (LAX)

For uncompensated Baro-VNAV systems, procedure NA below 5°C (40°F), or above 48°C (118°F).
For inoperative ALSF-2 increase visibility RNP 0.12 all Cats. to RVR 5000, RNP 0.17 all Cats. to RVR 6000, and increase RNP 0.30 all Cats. to 1½ mile. GPS required.

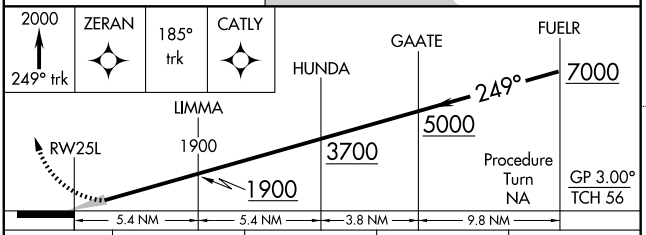
ALSF-2

MISSED APPROACH: Climb to 2000 via 249° track ZERAN and via 185° track to CATLY and hold.

ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	

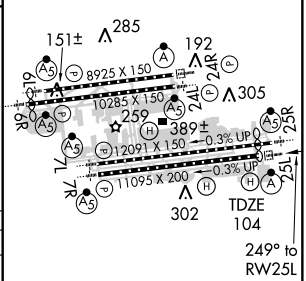


ELEV 126



CATEGORY	A	B	C	D
RNP 0.12 DA	408/24 304 (300-½)			
RNP 0.17 DA	458/40 354 (400-¾)			
RNP 0.30 DA	538/50 434 (500-1)			

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED



TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	11134
249°	TDZE	102
	Apt Elev	126

RNAV (RNP) Z RWY 25R

LOS ANGELES INTL (LAX)

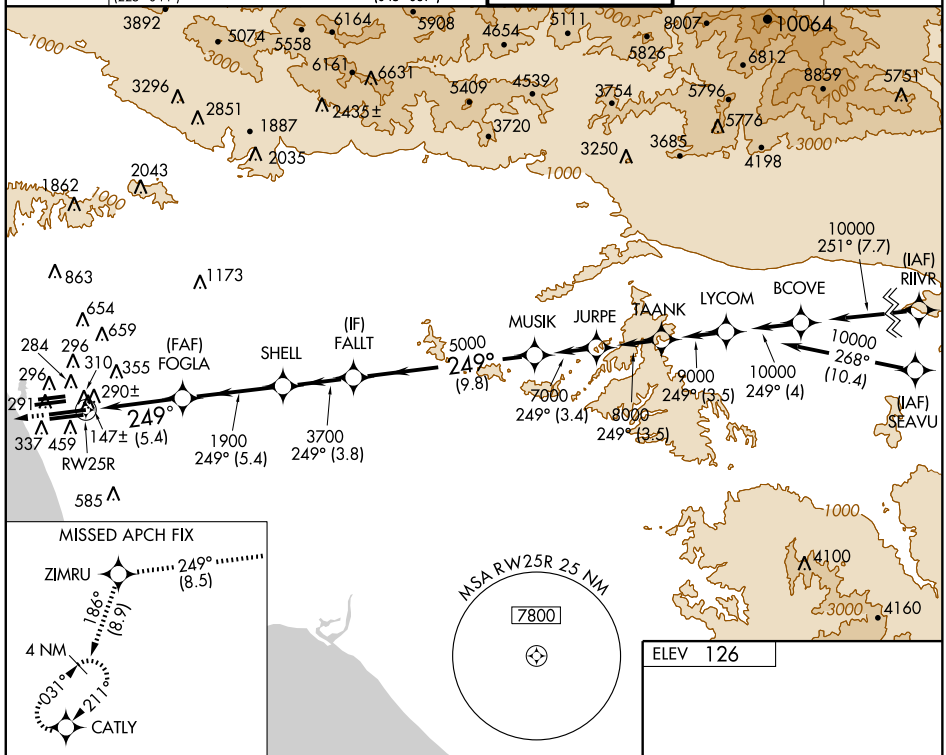
NA

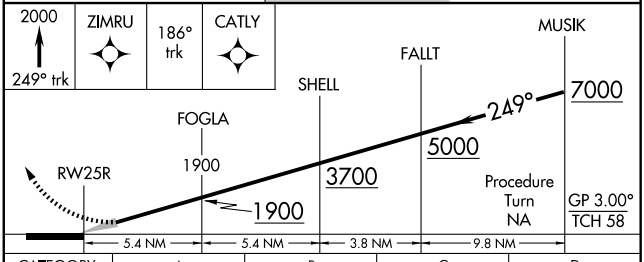
For inoperative MALSR, increase visibility RNP 0.11 to RVR 6000 and RNP 0.30 to 1½.
For uncompensated Baro-VNAV systems, procedure NA below 5°C (41°F) or above 48°C (118°F). GPS required.

MALSR

MISSED APPROACH: Climb to 2000 via 249° track to ZIMRU and via 186° track to CATLY and hold.

ATIS		SOCAL APP CON		LOS ANGELES TOWER	GND CON	CLNC DEL
ARR 133.8	124.3 363.2 (APCH FM WEST)		124.9 269.0 (090°-224°)	N 133.9 239.3	N 121.65 327.0	121.4 327.0
DEP 135.65	124.5 235.975 (225°-044°)		128.5 360.7 (045°-089°)	S 120.95 379.1	S 121.75 327.0	

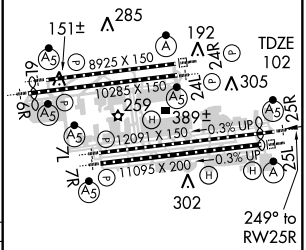




CATEGORY	A	B	C	D
RNP 0.11 DA	486/50 384 (400-1)			
RNP 0.30 DA	537/50 435 (500-1)			

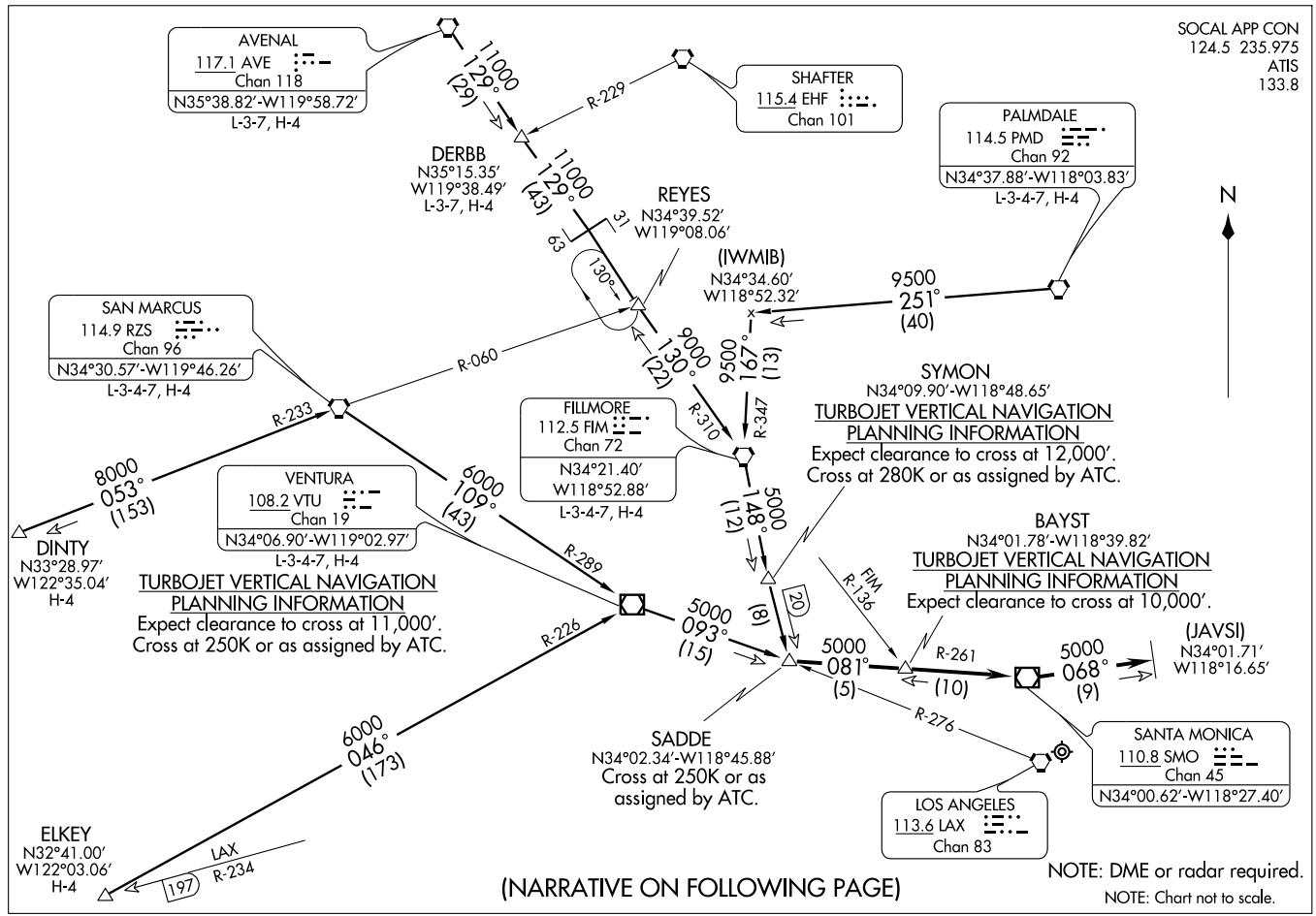
SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

ELEV 126



TDZ/CL Rwys 6R, 7L, 24R, and 25L
HIRL all Rwys

SW-3, 14 JAN 2010 to 11 FEB 2010


SOCAL APP CON
124.5 235.975
ATIS
133.8
(SADE.SADDE6) 09351
SADDE SIX ARRIVAL
ST-237 (FAA)
LOS ANGELES INTL
LOS ANGELES, CALIFORNIA
N
AVENAL
117.1 AVE
Chan 118
N35°38.82'-W119°58.72'
L-3-7, H-4
SHAFTER
115.4 EHF
Chan 101
PALMDALE
114.5 PMD
Chan 92
N34°37.88'-W118°03.83'
L-3-4-7, H-4
DERBB
N35°15.35'
W119°38.49'
L-3-7, H-4
REYES
N34°39.52'
W119°08.06'
(IWMIB)
N34°34.60'
W118°52.32'
SAN MARCUS
114.9 RZS
Chan 96
N34°30.57'-W119°46.26'
L-3-4-7, H-4
FILLMORE
112.5 FIM
Chan 72
N34°21.40'
W118°52.88'
L-3-4-7, H-4
SYMON
N34°09.90'-W118°48.65'
TURBOJET VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance to cross at 12,000'.
Cross at 280K or as assigned by ATC.
VENTURA
108.2 VTU
Chan 19
N34°06.90'-W119°02.97'
L-3-4-7, H-4
DINTY
N33°28.97'
W122°35.04'
H-4
TURBOJET VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance to cross at 11,000'.
Cross at 250K or as assigned by ATC.
BAYST
N34°01.78'-W118°39.82'
TURBOJET VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance to cross at 10,000'.
(JAVSI)
N34°01.71'
W118°16.65'
SADDE
N34°02.34'-W118°45.88'
Cross at 250K or as
assigned by ATC.
SANTA MONICA
110.8 SMO
Chan 45
N34°00.62'-W118°27.40'
LOS ANGELES
113.6 LAX
Chan 83
ELKEY
N32°41.00'
W122°03.06'
H-4
11000
129°
(29)
11000
129°
(43)
R-229
31
63
130°
9000
130°
(22)
9500
251°
(40)
9500
167°
(13)
R-060
R-233
R-310
R-347
8000
053°
(153)
6000
109°
(43)
5000
148°
(12)
R-289
FIM
R-136
20
5000
093°
(15)
(8)
5000
081°
(5)
R-261
(10)
5000
068°
(9)
R-226
R-276
6000
046°
(173)
LAX
197
R-234
(NARRATIVE ON FOLLOWING PAGE)
NOTE: DME or radar required.
NOTE: Chart not to scale.

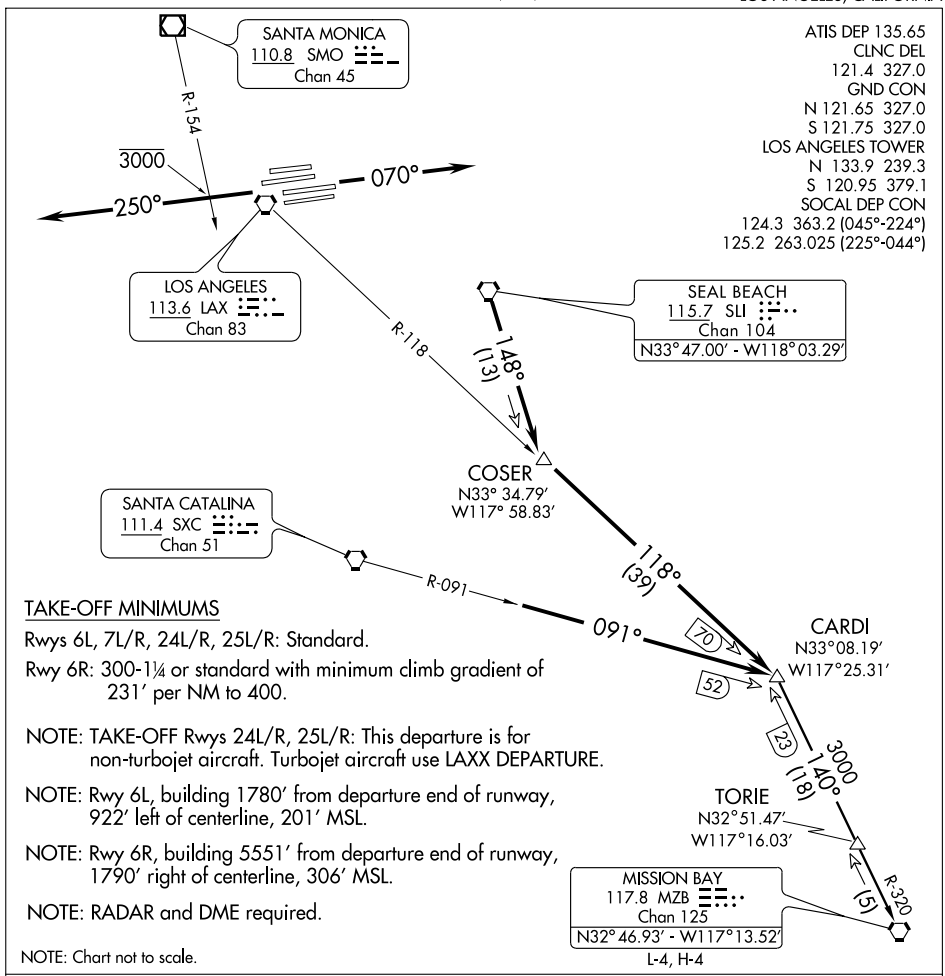
ARRIVAL DESCRIPTION

AVENAL TRANSITION (AVE.SADDE6): From over AVE VORTAC via AVE R-129 and FIM R-310 to FIM VORTAC, then via FIM R-148 to SADDE INT. Thence....
DERBB TRANSITION (DERBB.SADDE6): From over DERBB INT via AVE R-129 and FIM R-310 to FIM VORTAC, then via FIM R-148 to SADDE INT. Thence....
DINTY TRANSITION (DINTY.SADDE6): From over DINTY INT via RZS R-233 to RZS VORTAC; then via RZS R-109 and VTU R-289 to VTU VOR/DME, and then via VTU R-093 to SADDE INT. Thence....
ELKEY TRANSITION (ELKEY.SADDE6): From over ELKEY INT via VTU R-226 to VTU VOR/DME then via VTU R-093 to SADDE INT. Thence....
FILLMORE TRANSITION (FIM.SADDE6): From over FIM VORTAC via FIM R-148 to SADDE INT. Thence....
PALMDALE TRANSITION (PMD.SADDE6): From over PMD VORTAC via PMD R-251 and FIM R-347 to FIM VORTAC, then via FIM R-148 to SADDE INT. Thence....
SAN MARCUS TRANSITION (RZS.SADDE6): From over RZS VORTAC via RZS R-109 and VTU R-289 to VTU VOR/DME then via VTU R-093 to SADDE INT. Thence....
VENTURA TRANSITION (VTU.SADDE6): From over VTU VOR/DME via VTU R-093 to SADDE INT. Thence....
....From over SADDE INT via SMO R-261 to SMO VOR/DME, then via SMO R-068 to SMO 9 DME for Runways 24 and 25. From SMO 9 DME expect vector to final approach course for Los Angeles Intl Airport.

SAN DIEGO FIVE DEPARTURE

SL-237 (FAA)

LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA



TAKE-OFF MINIMUMS

Rwys 6L, 7L/R, 24L/R, 25L/R: Standard.

Rwy 6R: 300-1¼ or standard with minimum climb gradient of 231′ per NM to 400.

NOTE: TAKE-OFF Rwys 24L/R, 25L/R: This departure is for non-turbojet aircraft. Turbojet aircraft use LAXX DEPARTURE.

NOTE: Rwy 6L, building 1780′ from departure end of runway, 922′ left of centerline, 201′ MSL.

NOTE: Rwy 6R, building 5551′ from departure end of runway, 1790′ right of centerline, 306′ MSL.

NOTE: RADAR and DME required.

NOTE: Chart not to scale.

L-4, H-4

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 6L/R, 7L/R: Climb via heading 070° for vector to SLI VORTAC, then via SLI R-148 to COSER DME fix then via LAX R-118 to CARDI INT. Thence....

TAKE-OFF RUNWAYS 24L/R, 25L/R: Climb via heading 250° to cross SMO R-154 at or below 3000, then via RADAR vector to join SXC R-091 to CARDI INT. Thence....

....via (assigned transition) or (assigned route). All aircraft expect further clearance to filed flight level three minutes after departure.

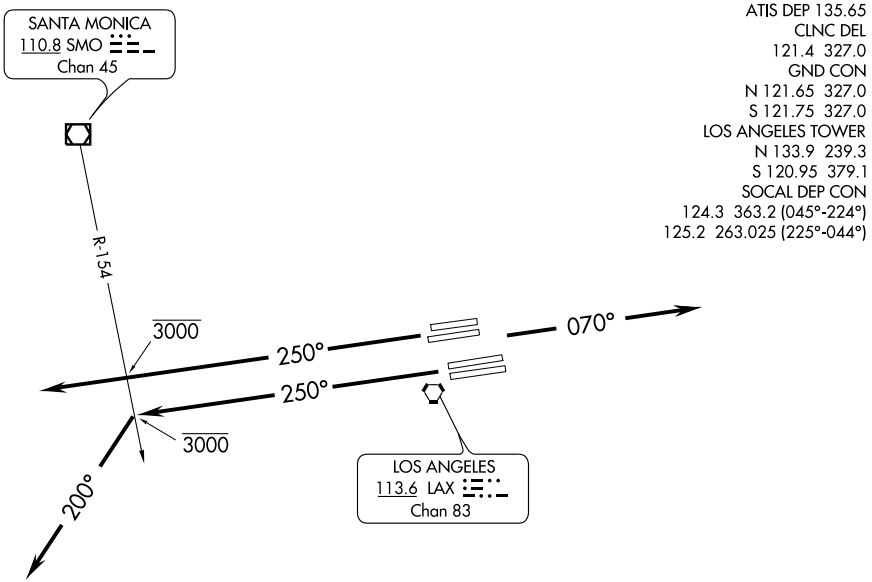
LOST COMMUNICATIONS: If not in contact with departure control within five minutes after departure, climb to FL230 or filed altitude whichever is lower. Aircraft filing FL240 or above climb to filed altitude ten minutes after departure.

MISSION BAY TRANSITION (SNGO5.MZB): From over CARDI INT via MZB R-320 to MZB VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010

SEAL BEACH FIVE DEPARTURE SL-237 (FAA)

LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA



SEAL BEACH
115.7 SLI
Chan 104
N33°47.00'-W118°03.29'
L-3-4, H-4

TAKE-OFF MINIMUMS

Rwys 6L, 7L/R, 24L/R, 25L/R: Standard.

Rwy 6R: 300-1¼ or standard with minimum climb of 231' per NM to 400.

NOTE: TAKE-OFF Rwys 24L/R, 25L/R: This departure is for non-turbojet aircraft. Turbojet aircraft use LAXX DEPARTURE.

NOTE: Rwys 25L/R, ATC minimum climb gradient of 410' per NM to 600' MSL required.

NOTE: Rwy 6R, building 5551' from departure end of runway, 1790' right of centerline, 306' MSL.

NOTE: Rwy 6L, building 1780' from departure end of runway, 922' left of centerline, 201' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

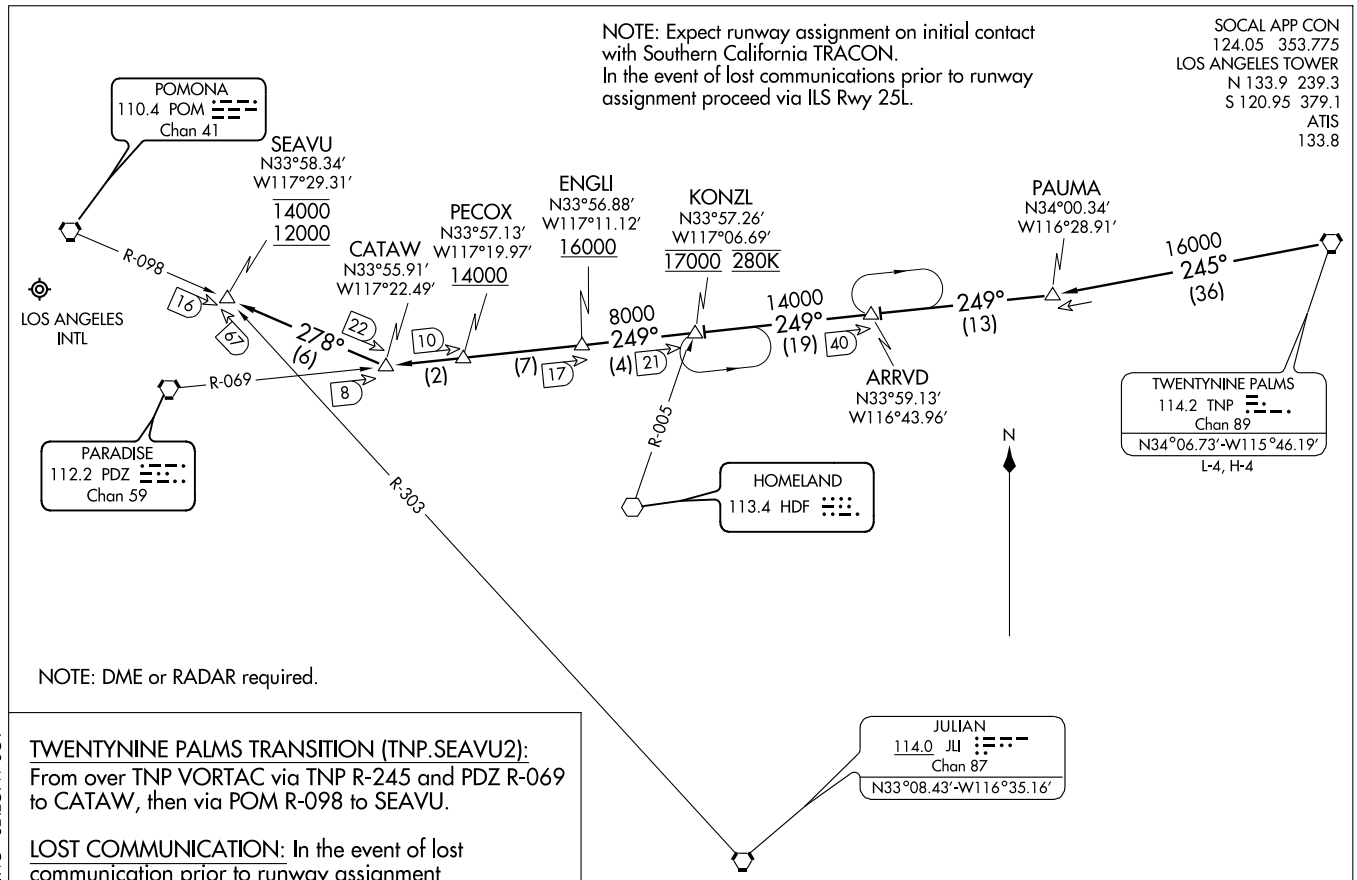
TAKE-OFF RUNWAYS 6L/R, 7L/R: Climb via heading 070° for vector to SLI VORTAC. Thence ....

TAKE-OFF RUNWAYS 24L/R: Climb via heading 250° to cross SMO R-154 at or below 3000' then via radar vectors to SLI VORTAC. Thence ....

TAKE-OFF RUNWAYS 25L/R: Climb via heading 250° to cross SMO R-154 at or below 3000' then turn left heading 200° for vector to SLI VORTAC. Thence ....

.... via (assigned route). All aircraft expect further clearance to filed flight level three minutes after departure.

LOST COMMUNICATIONS: If not in contact with Departure Control within five minutes after departure, climb to FL230 or filed altitude whichever is lower. Aircraft filing FL240 or above climb to filed altitude ten minutes after departure.

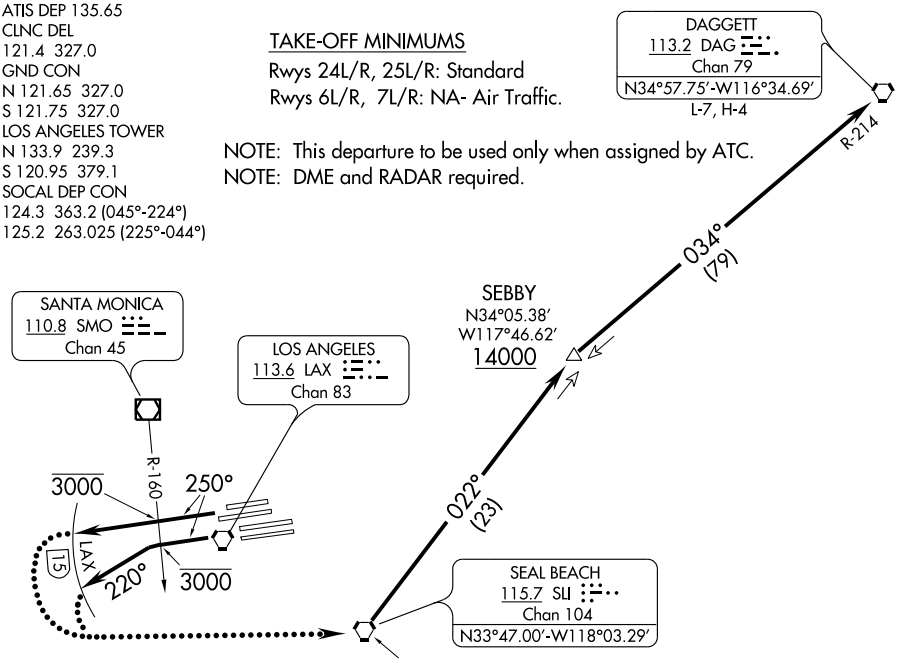

NOTE: Expect runway assignment on initial contact with Southern California TRACON.
In the event of lost communications prior to runway assignment proceed via ILS Rwy 25L.
SOCAL APP CON
124.05 353.775
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
ATIS
133.8
POMONA
110.4 POM
Chan 41
SEAVU
N33°58.34′
W117°29.31′
14000
12000
PECOX
N33°57.13′
W117°19.97′
14000
CATAW
N33°55.91′
W117°22.49′
ENGLI
N33°56.88′
W117°11.12′
16000
KONZL
N33°57.26′
W117°06.69′
17000 280K
PAUMA
N34°00.34′
W116°28.91′
16000
245°
(36)
249°
(13)
14000
249°
(19)
8000
249°
(4)
278°
(6)
(2)
(7)
R-098
R-069
R-303
R-005
LOS ANGELES INTL
PARADISE
112.2 PDZ
Chan 59
HOMELAND
113.4 HDF
ARRVD
N33°59.13′
W116°43.96′
TWENTYNINE PALMS
114.2 TNP
Chan 89
N34°06.73′-W115°46.19′
L-4, H-4
JULIAN
114.0 JLI
Chan 87
N33°08.43′-W116°35.16′
N
NOTE: DME or RADAR required.
TWENTYNINE PALMS TRANSITION (TNP.SEAVU2):
From over TNP VORTAC via TNP R-245 and PDZ R-069 to CATAW, then via POM R-098 to SEAVU.
LOST COMMUNICATION: In the event of lost communication prior to runway assignment proceed via ILS Rwy 25L.
NOTE: Chart not to scale.

SEBBY FOUR DEPARTURE

ATIS DEP 135.65
CLNC DEL
121.4 327.0
GND CON
N 121.65 327.0
S 121.75 327.0
LOS ANGELES TOWER
N 133.9 239.3
S 120.95 379.1
SOCAL DEP CON
124.3 363.2 (045°-224°)
125.2 263.025 (225°-044°)

TAKE-OFF MINIMUMS
Rwys 24L/R, 25L/R: Standard
Rwys 6L/R, 7L/R: NA- Air Traffic.

NOTE: This departure to be used only when assigned by ATC.
NOTE: DME and RADAR required.



TAKE-OFF OBSTACLE NOTES
Rwy 24L: Bush 962' from DER, 601' left of centerline, 29' AGL/148' MSL.
Antenna on pole 1357' from DER, 287' right of centerline, 25' AGL/144' MSL.
Rwy 24R: OL on glideslope 213' from DER, 400' left of centerline, 34' AGL/151' MSL.
Rwy 25L: Pole 2366' from DER, 820' left of centerline, 55' AGL/184' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 24L/R: Climb via heading 250°, cross SMO R-160 at or below 3000, Thence....
TAKE-OFF RUNWAYS 25L/R: Climb via heading 250°, cross SMO R-160 at or below 3000, then turn left via heading 220°, Thence....

....via radar vectors to cross SLI VORTAC at or above 10000, then via SLI R-022 to cross SEBBY at or above 14000, then turn right via DAG R-214 to DAG VORTAC, expect further clearance to filed flight level three minutes after departure.

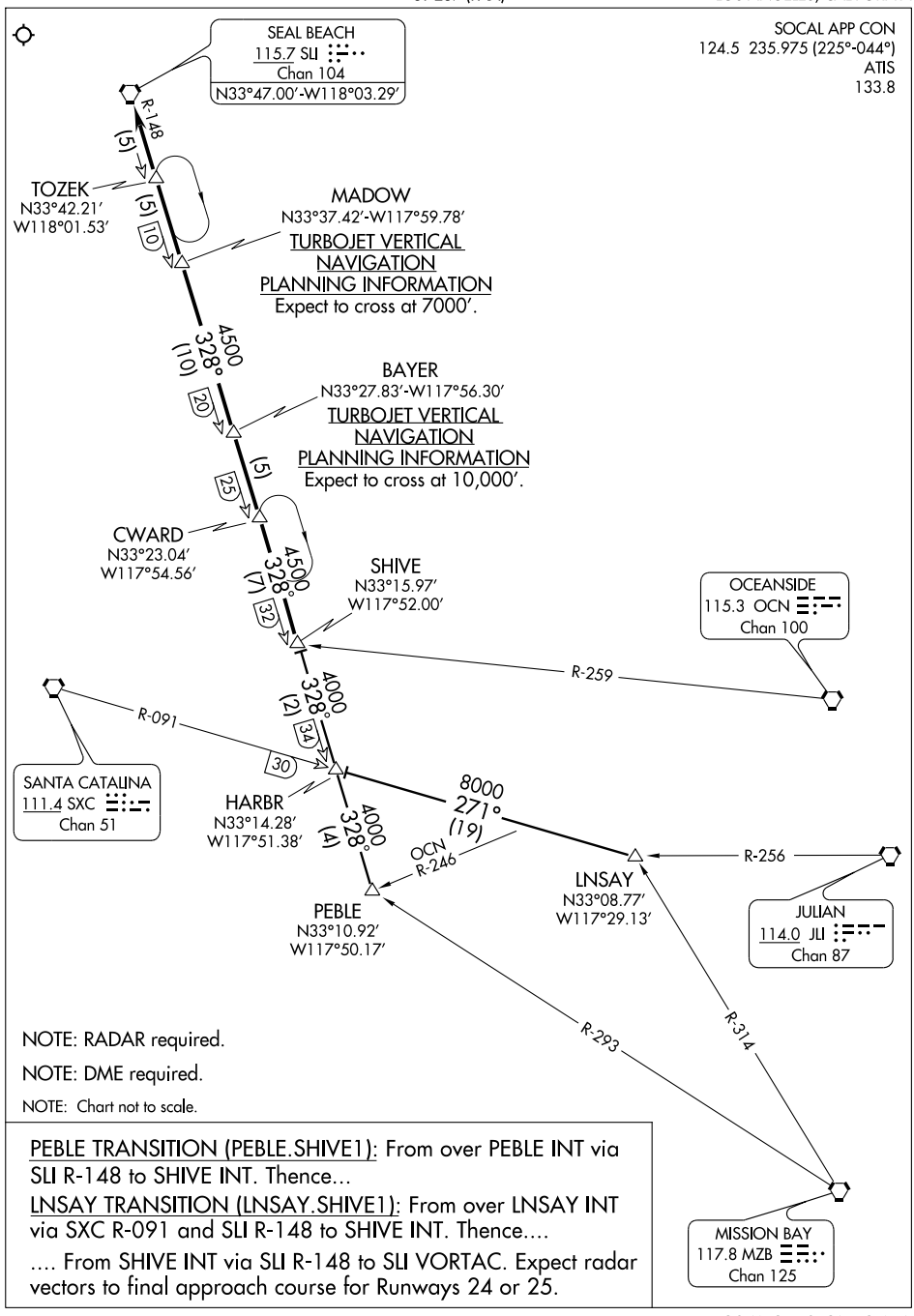
LOST COMMUNICATIONS: If not in contact with departure control by 15 DME west of LAX VORTAC, turn left direct SLI VORTAC and proceed on assigned route, climb to FL230 or filed altitude whichever is lower. Aircraft filing FL240 or above climb to filed altitude ten minutes after departure.

(SHIVE.SHIVE1) 09239

SHIVE ONE ARRIVAL

ST-237 (FAA)

LOS ANGELES INTL
LOS ANGELES, CALIFORNIA



NOTE: RADAR required.

NOTE: DME required.

NOTE: Chart not to scale.

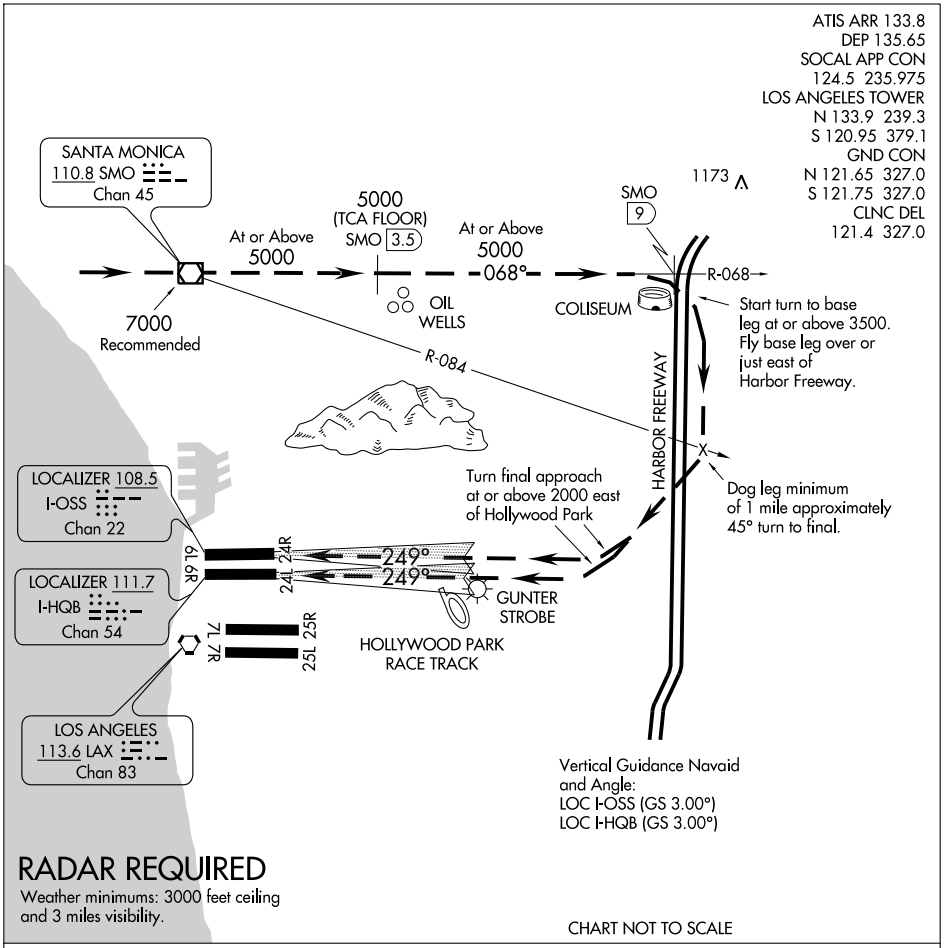
PEBLE TRANSITION (PEBLE.SHIVE1): From over PEBLE INT via SLI R-148 to SHIVE INT. Thence...

LNSAY TRANSITION (LNSAY.SHIVE1): From over LNSAY INT via SXC R-091 and SLI R-148 to SHIVE INT. Thence....

.... From SHIVE INT via SLI R-148 to SLI VORTAC. Expect radar vectors to final approach course for Runways 24 or 25.

SW-3, 14 JAN 2010 to 11 FEB 2010

STADIUM VISUAL RWY 24L/R



STADIUM VISUAL APPROACH

When visual approaches to Runways 24L/R are in progress, clearances to aircraft from the north and northwest will be given utilizing the following phraseology:

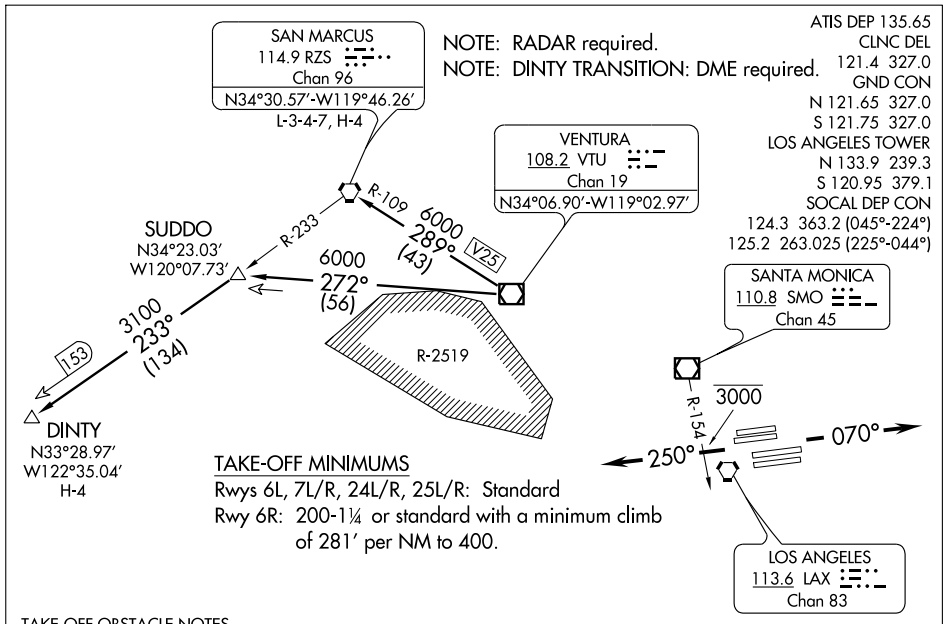
"(IDENT) CLEARED FOR STADIUM VISUAL RUNWAY 24 LEFT/RIGHT APPROACH."

A descent profile of approximately 3° starting at 7000 over SMO VOR/DME may be made with reference to the minimum altitudes above.

VENTURA FIVE DEPARTURE

SL-237 (FAA)

LOS ANGELES INTL (LAX)
LOS ANGELES, CALIFORNIA



TAKE-OFF MINIMUMS

Rwys 6L, 7L/R, 24L/R, 25L/R: Standard

Rwy 6R: 200-1¼ or standard with a minimum climb of 281′ per NM to 400.

TAKE-OFF OBSTACLE NOTES

Rwy 6L: Multitple signs and building beginning 1693′ from DER, 340′ left of centerline, up to 91′ AGL/201′ MSL.

Rwy 6R: OL on sign 1867′ from DER, 941′ left of centerline, 52′ AGL/161′ MSL.
Multiple towers and windsock beginning 4930′ from DER, 1734′ right of centerline, up to 207′ AGL/306′ MSL.

Rwy 7L: Multiple blast fences, signs, and antennas beginning 168′ from DER, on centerline to 1858′ from DER, 576′ left of centerline, up to 58′ AGL/147′ MSL.
Railroad 275′ from DER, up to 23′ AGL/117′ MSL.

Rwy 24L: Bush 962′ from DER, 601′ left of centerline, 29′ AGL/148′ MSL.
Antenna on pole 1357′ from DER, 287′ right of centerline, 25′ AGL/144′ MSL.

Rwy 24R: OL on glideslope 213′ from DER, 400′ left of centerline, 34′ AGL/151′ MSL.

Rwy 25L: Pole 2366′ from DER, 820′ left of centerline, 55′ AGL/184′ MSL.

NOTE: Chart not scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 6L/R, 7L/R: Climb via heading 070° for vectors to VTU VOR/DME. Thence. . . .

TAKE-OFF RUNWAYS 24L/R, 25L/R: Climb via heading 250° for vectors to VTU VOR/DME, cross SMO R-154 at or below 3000. Thence. . . .

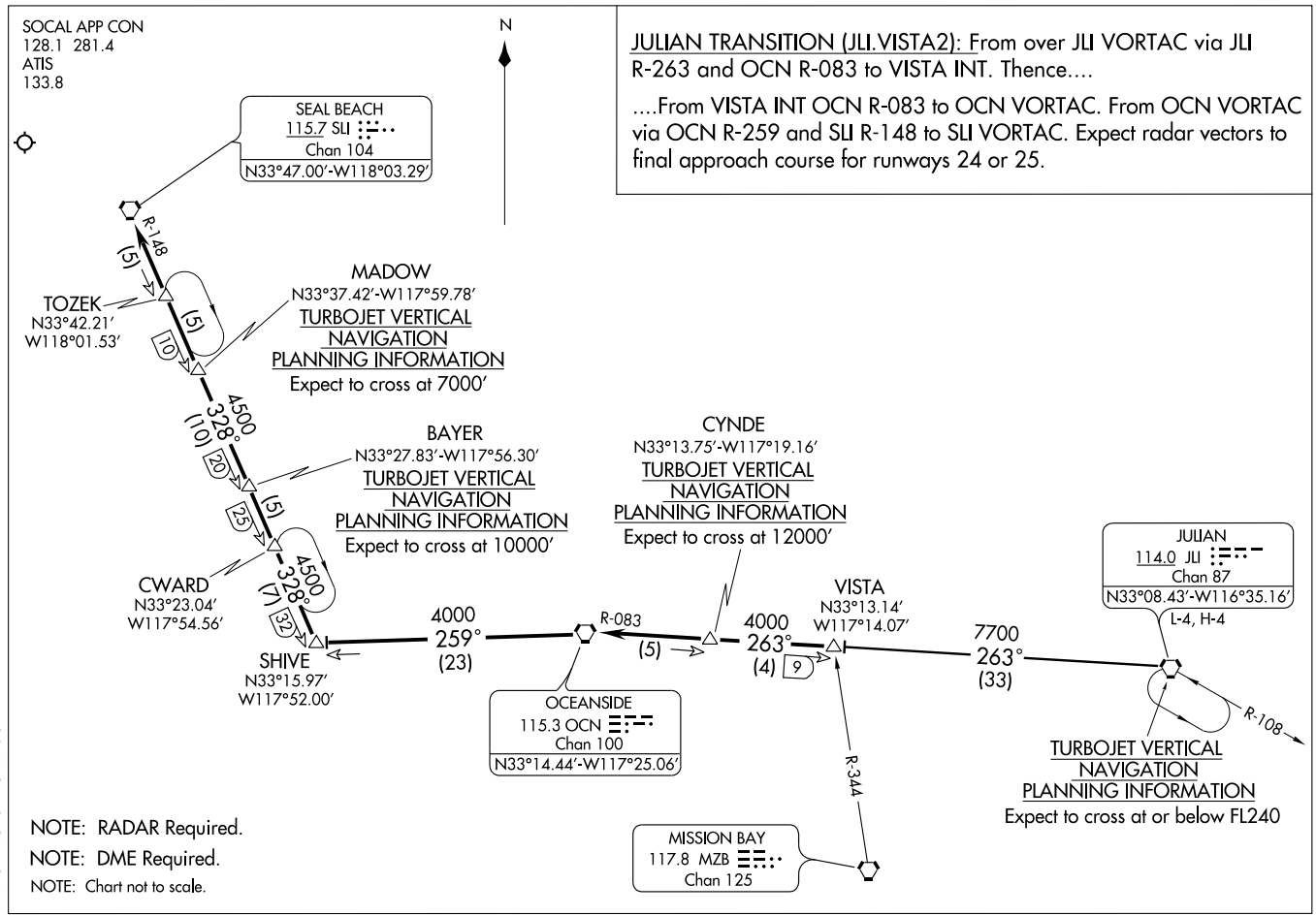
. . . .via (assigned transition) or (assigned route). Expect further clearance to filed flight level three minutes after departure.

LOST COMMUNICATIONS: If not in contact with Departure Control within five minutes after departure, climb to FL230 or filed altitude, whichever is lower. Aircraft filing FL240 or above climb to filed altitude ten minutes after departure.

DINTY TRANSITION (VTU5.DINTY): From over VTU VOR/DME via VTU R-272 and RZS R-233 to DINTY INT.

SAN MARCUS TRANSITION (VTU5.RZS): From over VTU VOR/DME via VTU R-289 and RZS R-109 to RZS VORTAC.

VISTA TWO ARRIVAL (VISTA.VISTA2) 07354

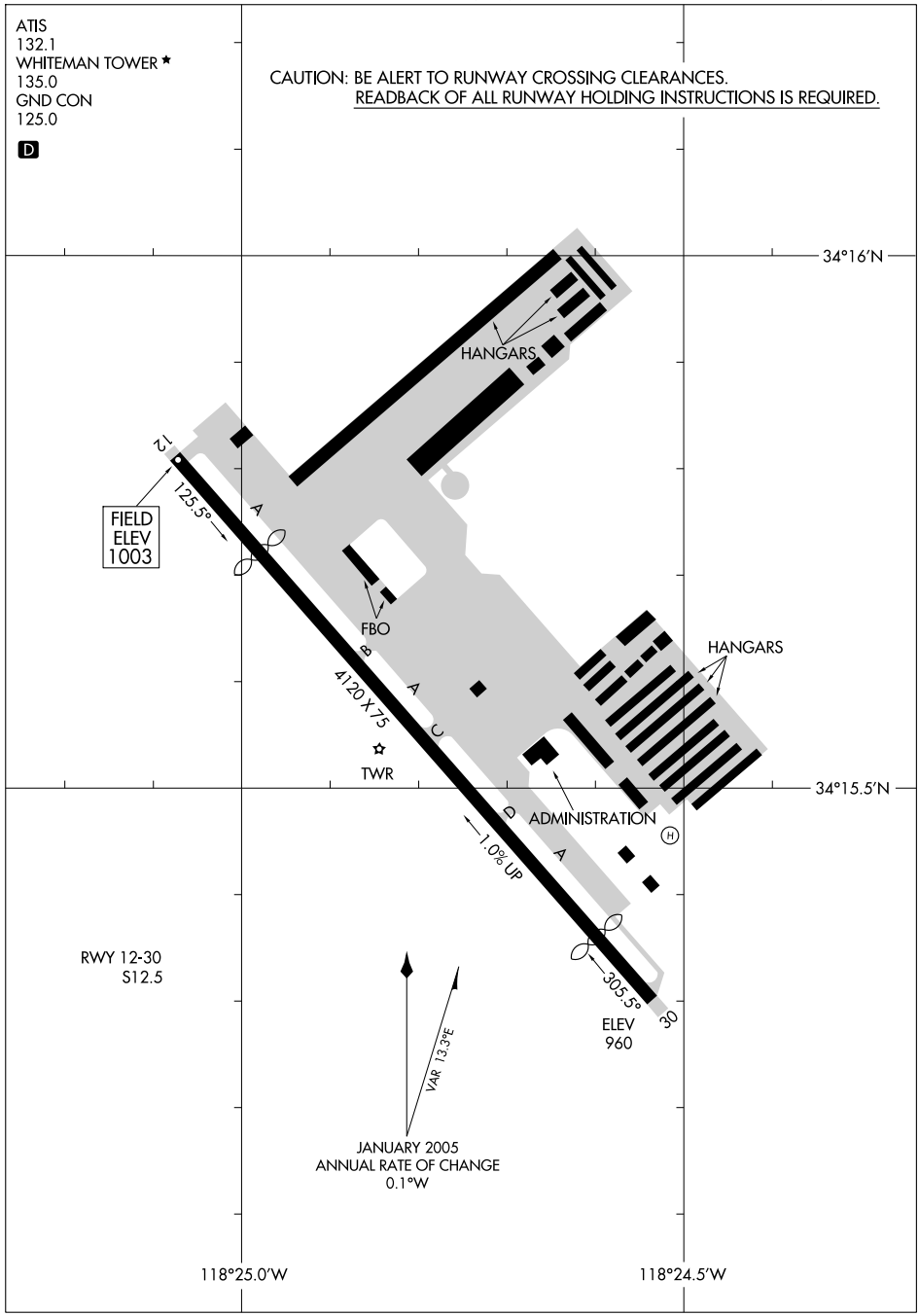


09295

AIRPORT DIAGRAM

AL-9132 (FAA)

LOS ANGELES/ WHITEMAN (WHP)
LOS ANGELES, CALIFORNIA



SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	N/A
110°	TDZE	N/A
	Apt Elev	1003

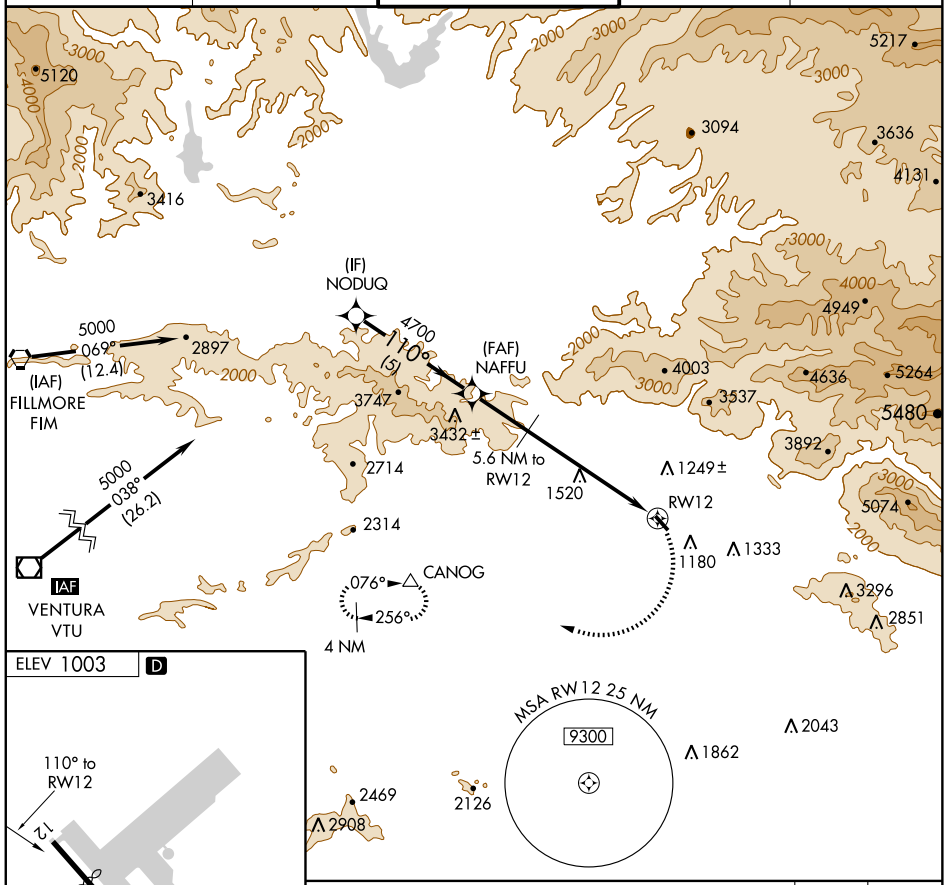
RNAV (GPS)-C

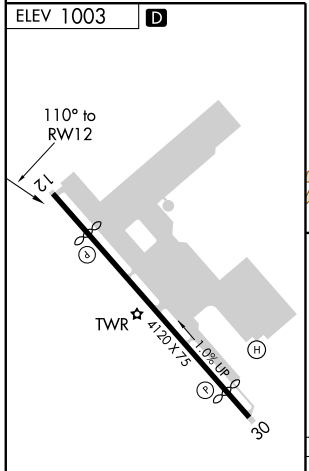
LOS ANGELES/WHITEMAN (WHP)

When control tower closed, use Burbank altimeter setting.
IAF ARM APPROACH MODE PRIOR TO IAF.
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

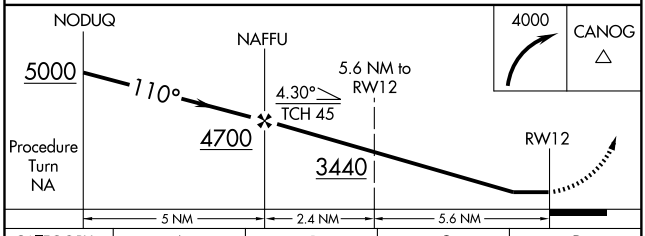
MISSED APPROACH: Climbing right turn to 4000 direct CANOG and hold.

ATIS	SOCAL APP CON	WHITEMAN TOWER ★	GND CON	UNICOM
132.1	134.2 338.2	135.0 (CTAF)	125.0	122.95





REIL Rwys 12 and 30
MIRL Rwy 12-30



CATEGORY	A	B	C	D
CIRCLING	1900-1¼ 897 (900-1¼)		1900-2¾ 897 (900-2¾)	NA

SW-3, 14 JAN 2010 to 11 FEB 2010

VOR/DME VNY	APP CRS	Rwy Idg	N/A
113.1	046°	TDZE	N/A
Chan 78		Apt Elev	1003

VOR-A

LOS ANGELES/ WHITEMAN (WHP)

When control tower closed, use Burbank altimeter setting.

MISSED APPROACH: Climbing left turn to 3700 direct VNY VOR/DME then via VNY VOR/DME R-255 to CANOG INT/ VNY 5.1 DME and hold.

ATIS	SOCAL APP CON	WHITEMAN TOWER ★	GND CON	UNICOM
132.1	134.2 338.2	135.0 (CTAF)	125.0	122.95

Procedure NA for arrivals at FIM VORTAC via V518 westbound.

IAF FILLMORE 112.5 FIM Chan 72

4400 NoPT 120° (11.3)

4400 NoPT 075° (5.5)

(IAF) GINNA VNY 16.9

R-120

3700 075° (6.3)

R-255

SUANA VNY 11.4

4600 NoPT 053° (17.6)

IAF VENTURA 108.2 VTU Chan 19

(IF/IAF) CANOG VNY 5.1

075° 1 min 255°

3200 075° (5.1)

4600 255° (5.1)

Van Nuys

VAN NUYS 113.1 VNY Chan 78

R-317

R-320

10 NM

4400 317° (14.5)

SANTA MONICA 110.8 SMO Chan 45

4400 320° (19.2)

LOS ANGELES 113.6 LAX Chan 83

MSA VNY 25 NM

185° 7300 9300 095° 275° 6200 4400 005°

3416 2897 3747 4003 4636 4949 5264 3537 3892 5074 3296 2851 2714 2314 1520 1249± 1097 1180 1333 2043 1862 2469 2908 2126

ELEV 1003 D

TWR 4120 X 75 1.0% UP

046° 12 30

REIL Rwys 12 and 30
MIRL Rwy 12-30

One Minute Holding Pattern CANOG INT VNY 5.1

3700 VNY 113.1 VNY R-255 CANOG

VOR/DME VNY 4

3700 255° 075° 075° 3200 046°

5.1 NM 4 NM

FAF to MAP 4 NM					
Knots	60	90	120	150	180
Min:Sec	4:00	2:40	2:00	1:36	1:20

CATEGORY	A	B	C	D
CIRCLING	1840-1 837 (900-1)	1840-1¼ 837 (900-1¼)	1840-2½ 837 (900-2½)	NA

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	3801
CH 53715	137°	TDZE	121
W14A		Apt Elev	121

RNAV (GPS) RWY 14

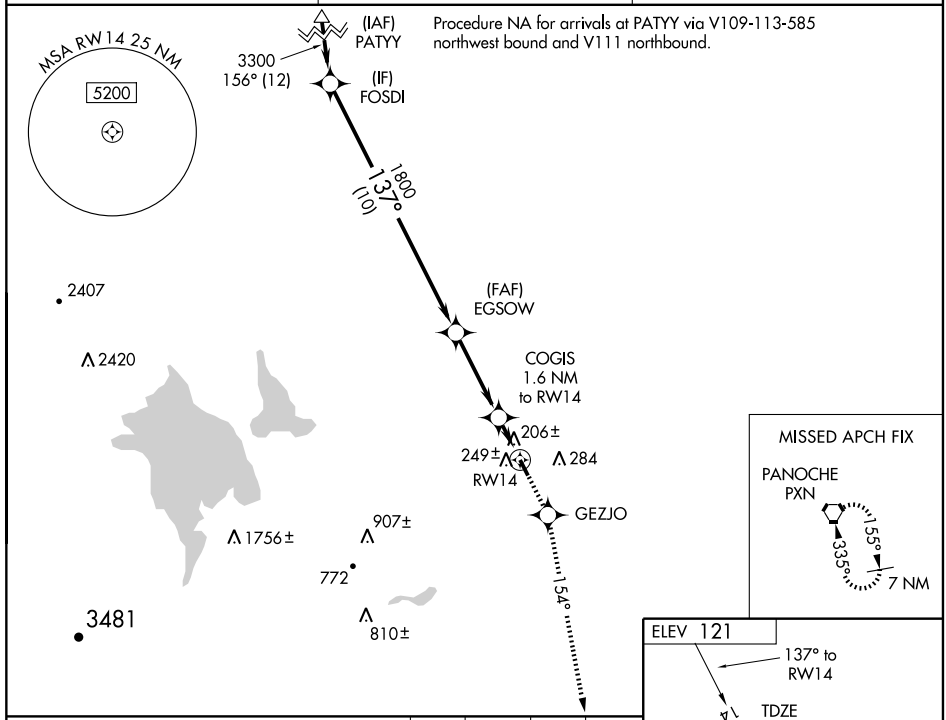
LOS BANOS MUNI (LSN)

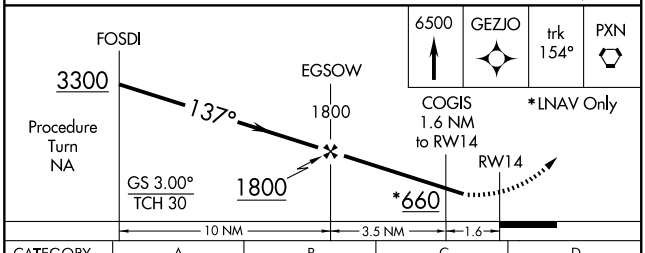
Baro-VNAV NA when using Merced Rgnl/Macready Field altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP- 0.3 NA. Visibility reduction by helicoptors NA. When local altimeter setting not received, use Merced Rgnl/Macready Field altimeter setting and increase all DA/MDA 60 feet and all visibility ¼ mile.

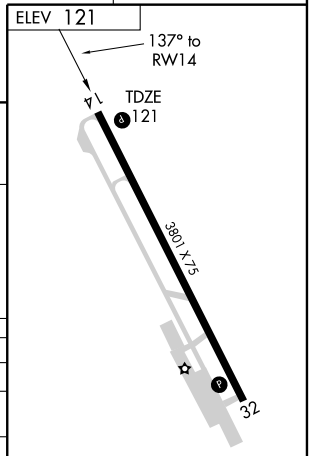
NA

MISSED APPROACH: Climb to 6500 direct GEZJO and via track 154° to PXN VORTAC and hold, continue climb-in-hold to 6500.

AWOS-3	NORCAL APP CON	UNICOM
118.675	120.95 269.45	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	455-1¼ 334 (400-1¼)			
LNAV/VNAV DA	519-1½ 398 (400-1½)			
LNAV MDA	520-1 399 (400-1)			520-1¼ 399 (400-1¼)
CIRCLING	640-1 519 (600-1)		640-1½ 519 (600-1½)	680-2 559 (600-2)

MIRL Rwy 14-32 L
REIL Rwys 14 and 32 L

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3801
317°	TDZE	121
	Apt Elev	121

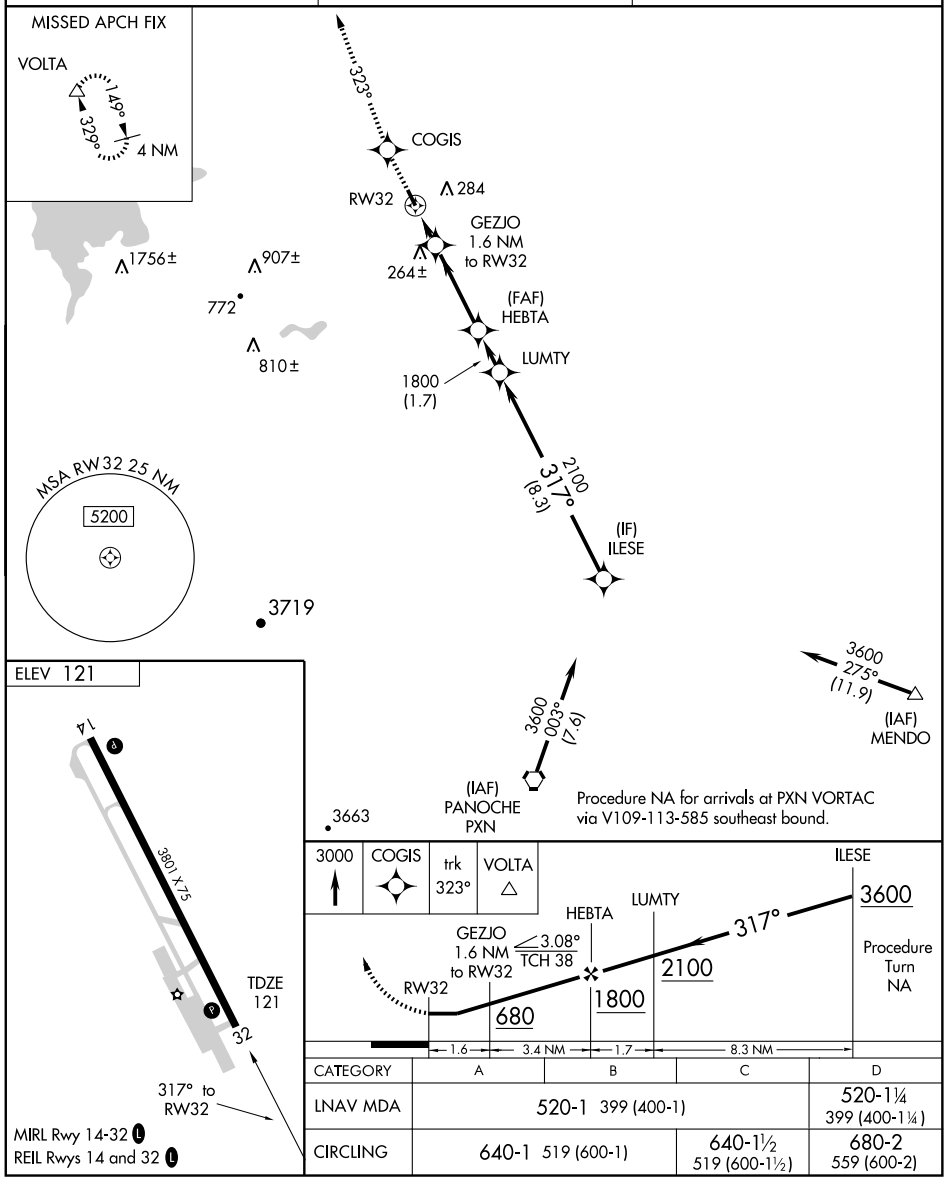
RNAV (GPS) RWY 32

LOS BANOS MUNI (LSN)

DME/DME RNP- 0.3 NA. Visibility reduction by helicoptors NA. When local altimeter setting not received, use Merced Rgnl/Macready Field atimeter setting and increase all MDA 60 feet. Increase all visibility ¼ mile.

MISSED APPROACH: Climb to 3000 direct COGIS and via track 323° to VOLTA and hold.

AWOS-3	NORCAL APP CON	UNICOM
118.675	120.95 269.45	122.8 (CTAF) L



CATEGORY	A	B	C	D
LNAV MDA	520-1 399 (400-1)			520-1¼ 399 (400-1¼)
CIRCLING	640-1 519 (600-1)		640-1½ 519 (600-1½)	680-2 559 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC PXN	APP CRS	Rwy Idg	3801
112.6	152°	TDZE	121
Chan 73		Apt Elev	121

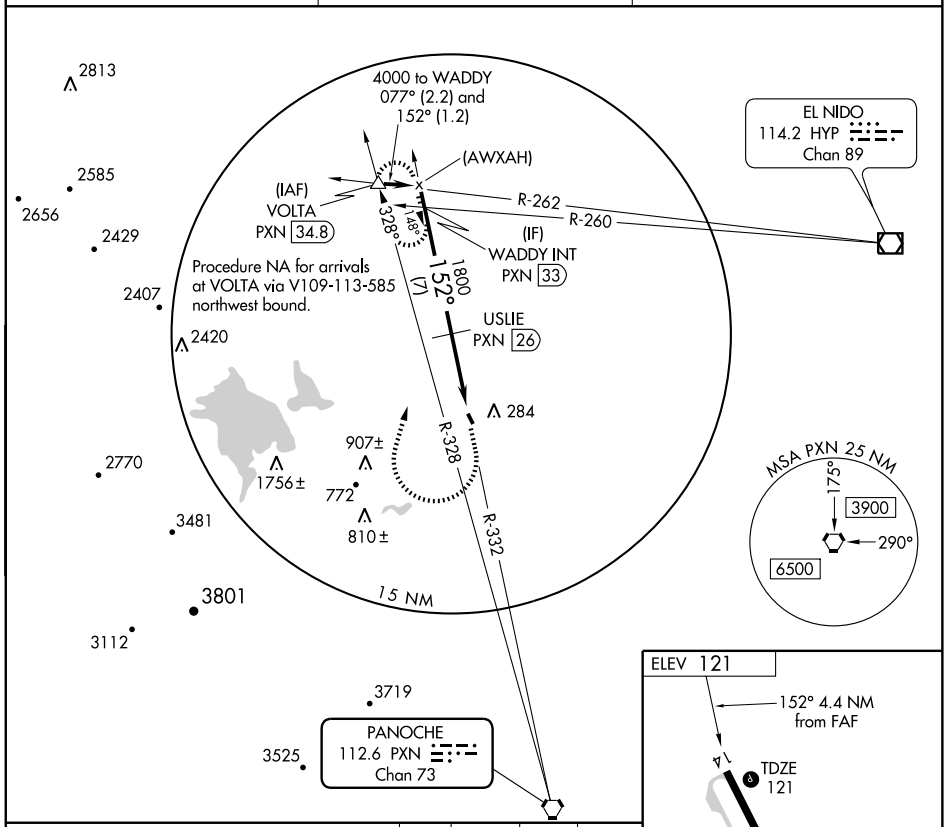
VOR/DME RWY 14

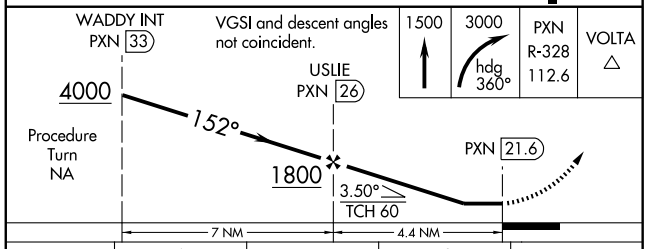
LOS BANOS MUNI (LSN)

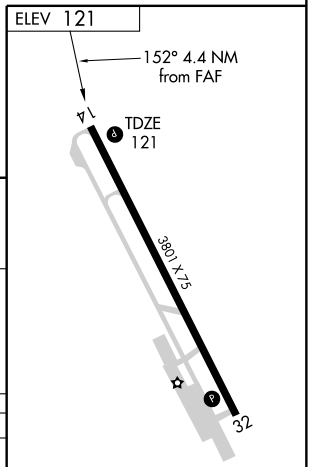
Visibility reduction by helicopters NA.
NA When local altimeter setting not received, use Merced Rgnl/ Macready Field altimeter setting and increase all MDA 60 feet.

MISSED APPROACH: Climb to 1500 then climbing right turn to 3000 via heading 360° and PXN VORTAC R-328 to VOLTA INT/PXN 34.8 DME and hold.

AWOS-3	NORCAL APP CON	UNICOM
118.675	120.95 269.45	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-14	560-1 439 (500-1)	560-1¼ 439 (500-1¼)	560-1½ 439 (500-1½)	560-1¾ 439 (500-1¾)
CIRCLING	640-1 519 (600-1)	640-1¼ 519 (600-1¼)	640-1½ 519 (600-1½)	680-2 559 (600-2)

MIRL Rwy 14-32 L
REIL Rwys 14 and 32 L

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC PXN	APP CRS	Rwy Idg	3801
112.6	332°	TDZE	121
Chan 73		Apt Elev	121

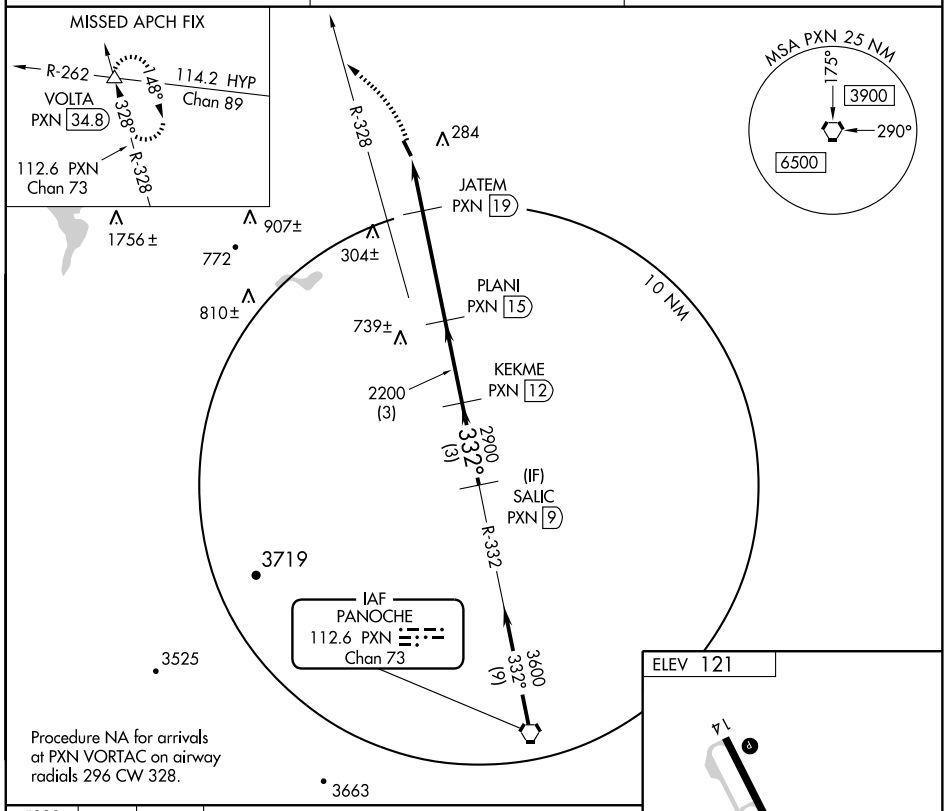
VOR/DME RWY 32

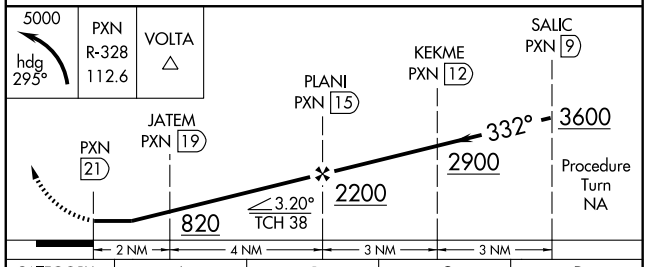
LOS BANOS MUNI (LSN)

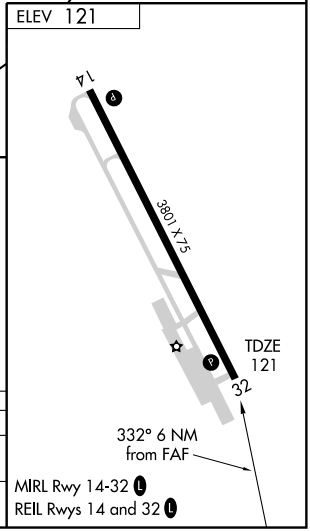
When local altimeter setting not received, use Merced Rgnl/Macready Field altimeter setting and increase all MDA 60 feet.

MISSED APPROACH: Climbing lefft turn to 5000 via heading 295° and PXN VORTAC R-328 to VOLTA INT/PXN 34.8 DME and hold.

AWOS-3	NORCAL APP CON	UNICOM
118.675	120.95 269.45	122.8 (CTAF)







CATEGORY	A	B	C	D
S-32	580-1 459 (500-1)	580-1¼ 459 (500-1¼)	580-1½ 459 (500-1½)	580-1¾ 459 (500-1¾)
CIRCLING	640-1 519 (600-1)	640-1¼ 519 (600-1¼)	640-1½ 519 (600-1½)	680-2 559 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

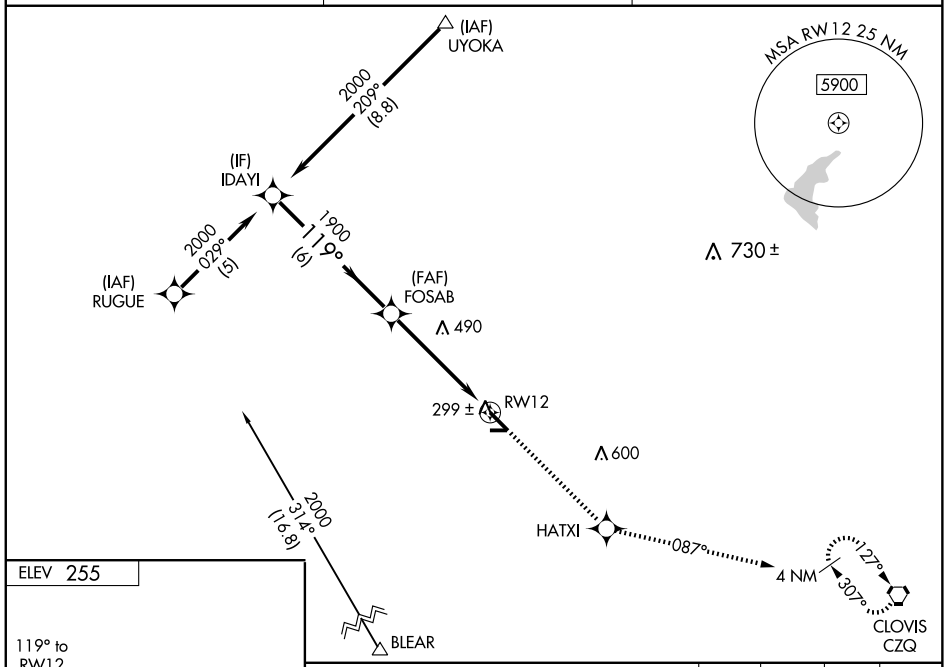
WAAS	APP CRS	Rwy Idg	5545
CH 62909	119°	TDZE	253
W12A		Apt Elev	255

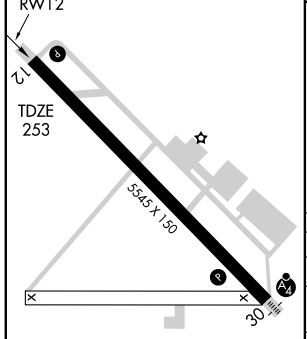
RNAV (GPS) RWY 12
MADERA MUNI (MAE)

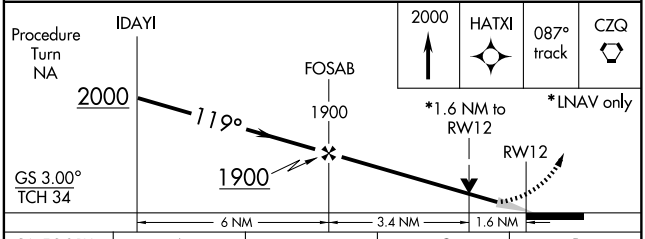
DME/DME RNP- 0.3 NA. Circling NA to Rwy 7/25.
Baro-VNAV NA when using Fresno Yosemite Intl altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F).
When local altimeter setting not received, use Fresno Yosemite Intl altimeter setting and increase all DA 64 feet and all visibilities ¼ mile; increase all MDA 80 feet and all visibilities ¼ mile.
VDP NA when using Fresno Yosemite Intl altimeter setting.

MISSED APPROACH: Climb to 2000 direct HATXI and via 087° track to CZQ VORTAC and hold.

ASOS	FRESNO APP CON	UNICOM
134.725	119.45	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	503-1 250 (300-1)			NA
LNAV/VNAV DA	569-1¼ 316 (400-1¼)			NA
LNAV MDA	800-1 547 (600-1)		800-1½ 547 (600-1½)	NA
CIRCLING	800-1 545 (600-1)		800-1½ 545 (600-1½)	NA

MIRL Rwy 12-30 L

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 90209 W30A	APP CRS 299°	Rwy Idg 5545 TDZE 255 Apt Elev 255

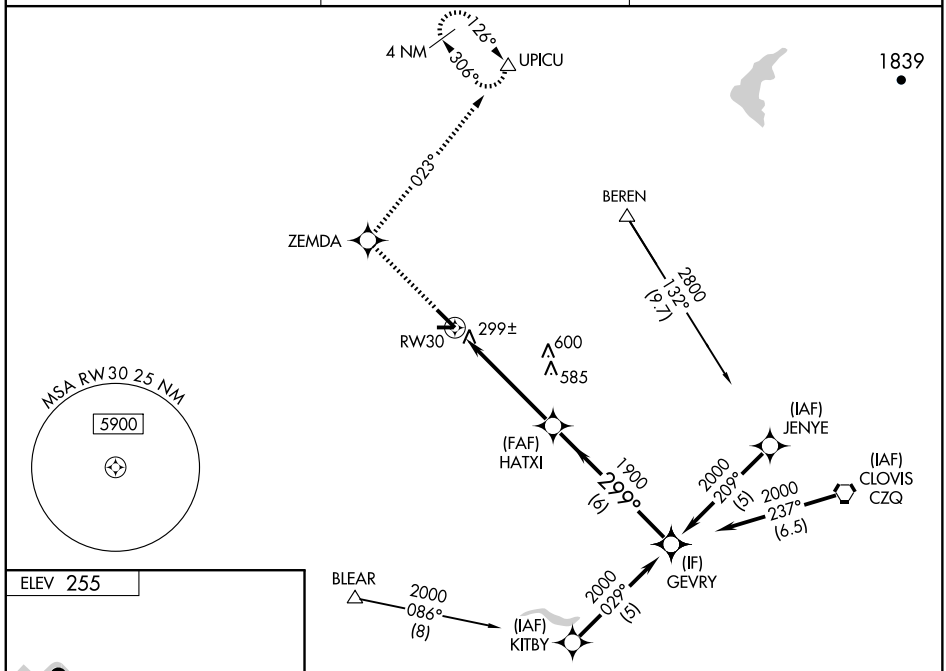
RNAV (GPS) RWY 30
MADERA MUNI (MAE)

DME/DME RNP- 0.3 NA. Circling NA to Rwy 7/25.
Baro-VNAV NA when using Fresno Yosemite Intl altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F).
When local altimeter setting not received, use Fresno Yosemite Intl altimeter setting and increase all DA 64 feet and all visibilities ¼ mile; increase all MDA 80 feet and all visibilities ¼ mile.
VDP NA when using Fresno Yosemite Intl altimeter setting.

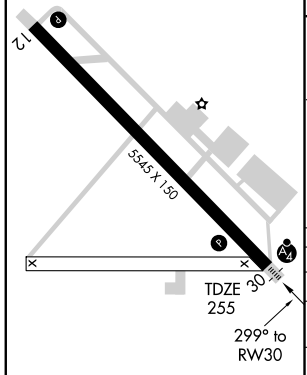
MALSF

MISSED APPROACH: Climb to 2100 direct ZEMDA and via 023° track to UPICU and hold.

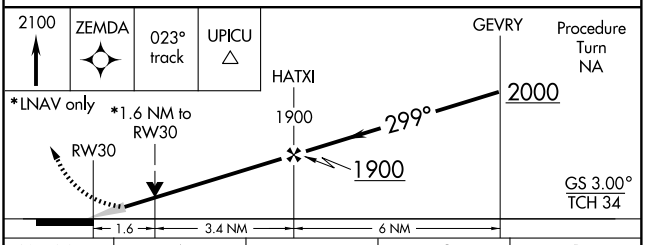
ASOS	FRESNO APP CON	UNICOM
134.725	119.45	122.8 (CTAF) L



ELEV 255



MIRL Rwy 12-30 L



CATEGORY	A	B	C	D
LPV DA	505-1 250 (300-1)			NA
LNAV/VNAV DA	584-1¼ 329 (400-1¼)			NA
LNAV MDA	800-1 545 (600-1)		800-1½ 545 (600-1½)	NA
CIRCLING	800-1 545 (600-1)		800-1½ 545 (600-1½)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

MADERA, CALIFORNIA AL-6399 (FAA)

VORTAC CZQ	APP CRS	Rwy Idg	5545
112.9	277°	TDZE	253
Chan 76		Apt Elev	253

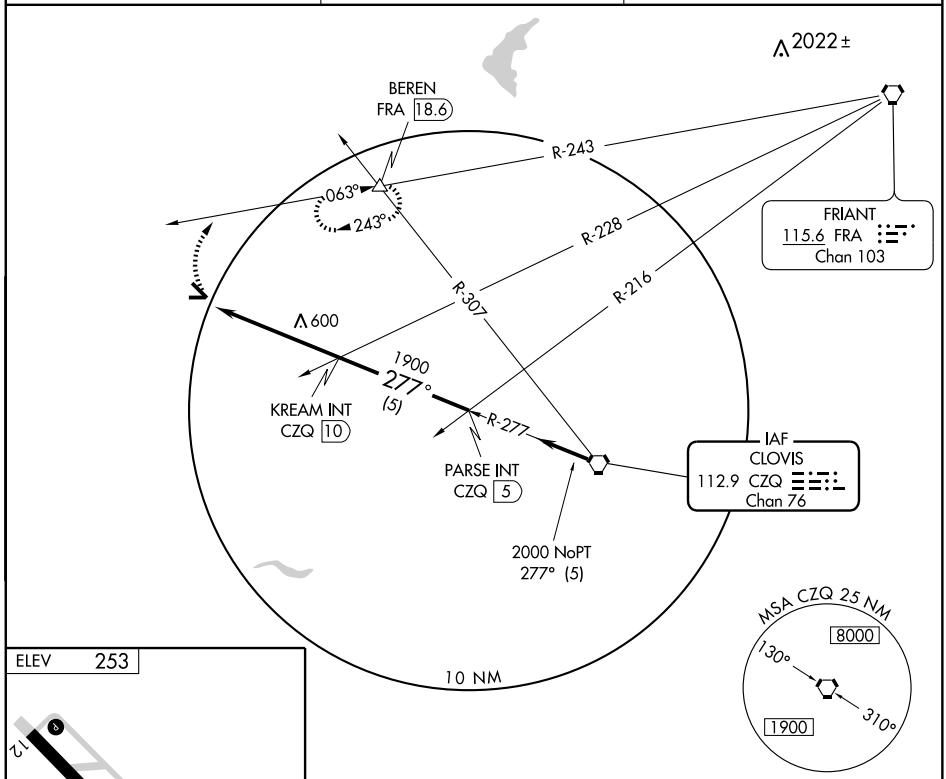
VOR RWY 30
MADERA MUNI (MAE)

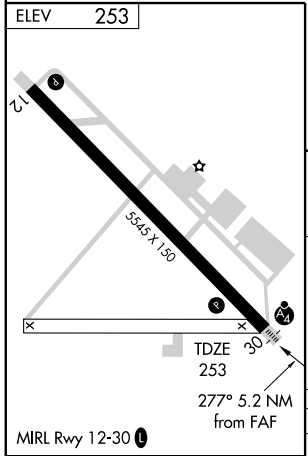
NA — Circling to Rwy 7-25 not authorized.

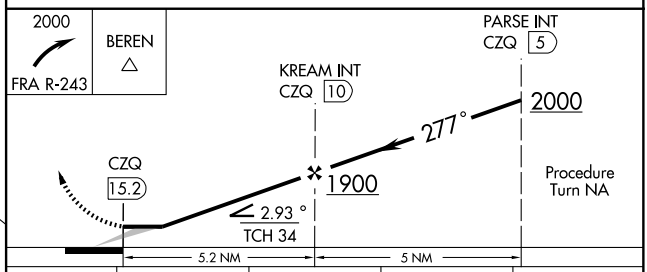
MALSF

MISSED APPROACH: Climbing right turn to 2000 via FRA R-243 to BEREN Int/FRA 18.6 DME and hold.

ASOS	FRESNO APP CON	UNICOM
134.725	119.45	122.8 (CTAF) L







FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

CATEGORY	A	B	C	D
S-30	960-1	707 (800-1)	960-2 707 (800-2)	NA
CIRCLING	960-1	707 (800-1)	960-2 707 (800-2)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

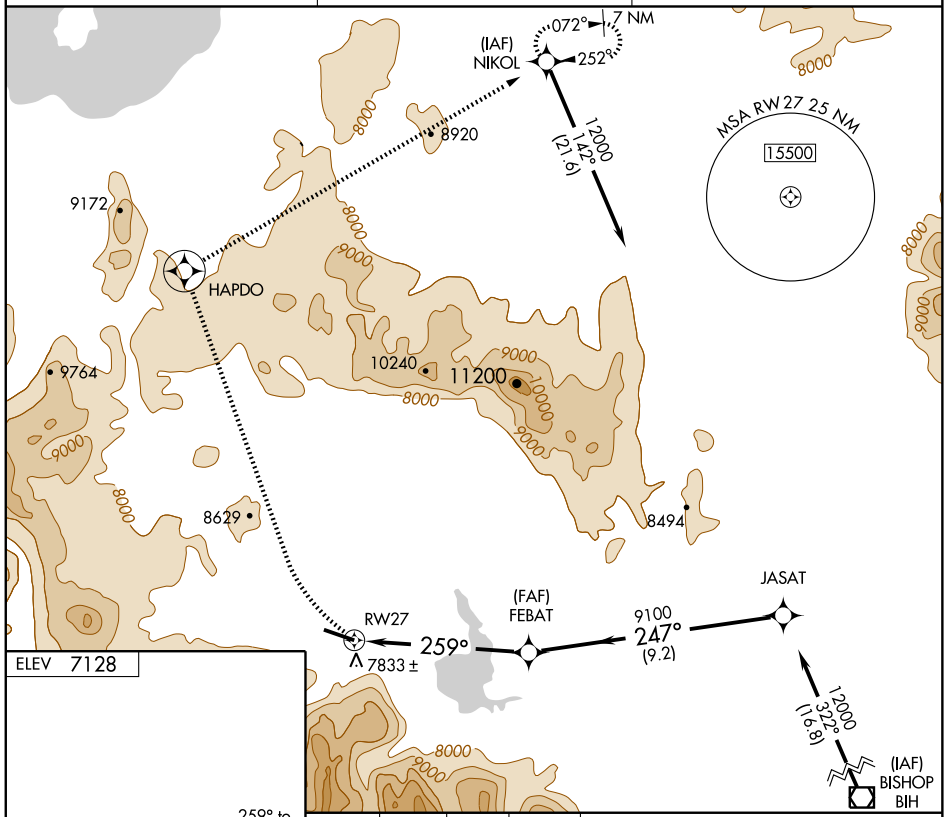
APP CRS	Rwy Idg	7000
259°	TDZE	7092
	Apt Elev	7128

RNAV (GPS) RWY 27
MAMMOTH YOSEMITE (MMH)

T NA — GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA. Circling NA south of Rwy 9-27. Circling NA at night.

MISSED APPROACH: Climbing right turn to 12000 direct HAPDO WP then direct NIKOL WP and hold.

AWOS-3	OAKLAND CENTER	UNICOM
118.05	125.75 284.65	122.8 (CTAF) L



CATEGORY	A	B	C	D
LNAV MDA	8380-1¼ 1288 (1300-1¼)	8380-1½ 1288 (1300-1½)	8380-3 1288 (1300-3)	NA
CIRCLING	8380-1¼ 1252 (1300-1¼)	8380-1½ 1252 (1300-1½)	8380-3 1252 (1300-3)	NA

REIL Rwy 27 L
MIRL Rwy 9-27 L

SW-2, 14 JAN 2010 to 11 FEB 2010

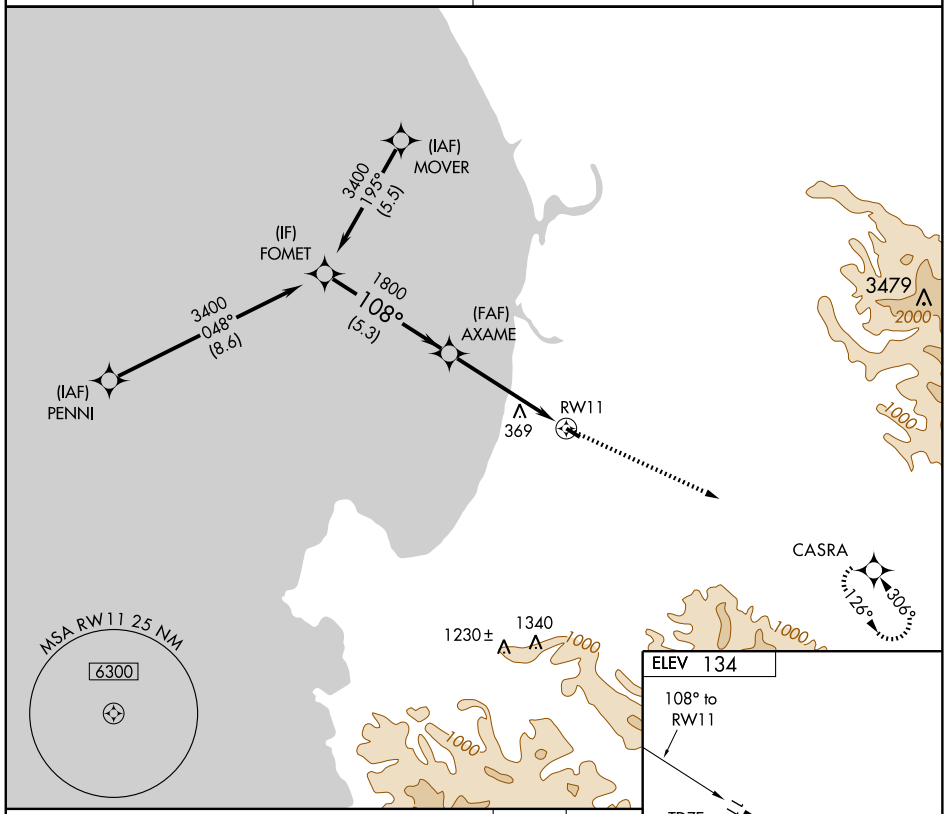
APP CRS	Rwy Idg	3483
108°	TDZE	134
	Apt Elev	134

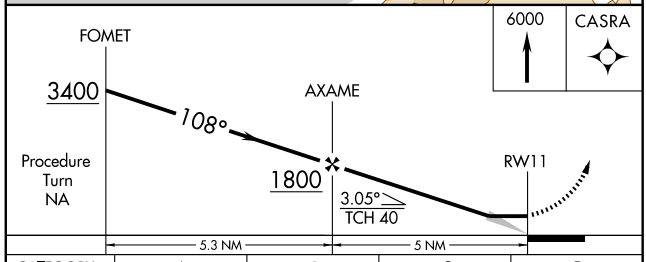
RNAV (GPS) RWY 11
MARINA MUNI (OAR)

T
NA Use Monterey altimeter setting.
GPS or RNP-0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 6000 direct CASRA WP and hold.

NORCAL APP CON	UNICOM
133.0 251.15	122.7 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	720-1	586 (600-1)	NA	
CIRCLING	720-1	586 (600-1)	NA	

MIRL Rwy 11-29 L

SW-2, 14 JAN 2010 to 11 FEB 2010

MARINA, CALIFORNIA AL-5271 (FAA)

APP CRS	Rwy Idg	3483
288°	TDZE	134
	Apt Elev	134

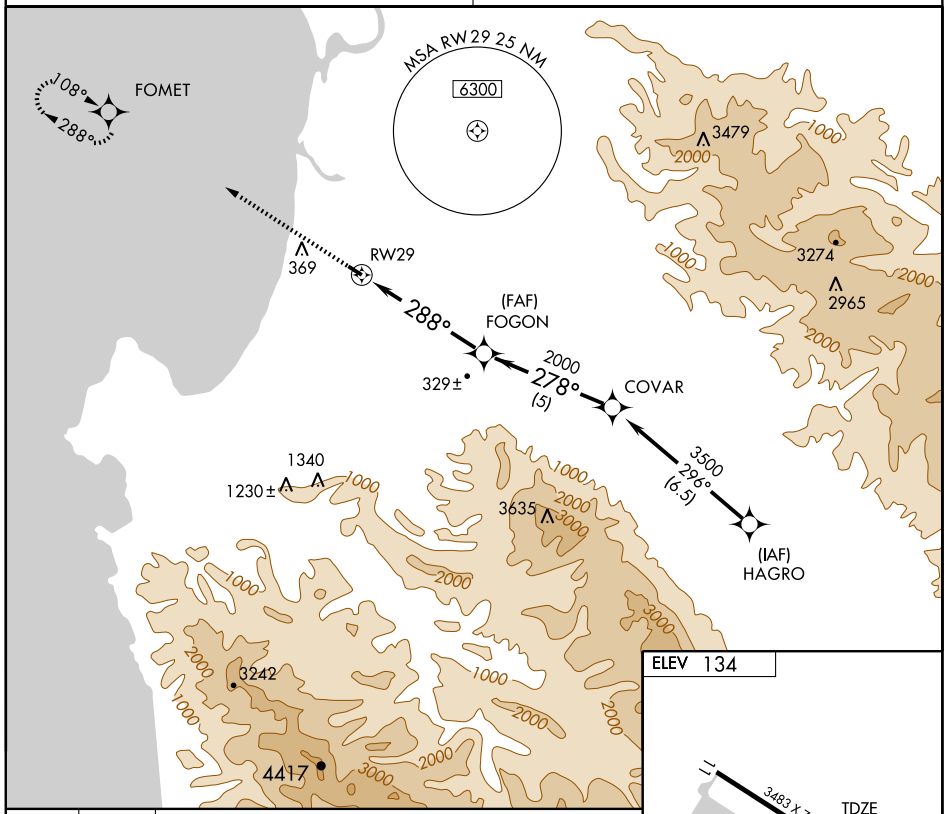
RNAV (GPS) RWY 29
MARINA MUNI (OAR)

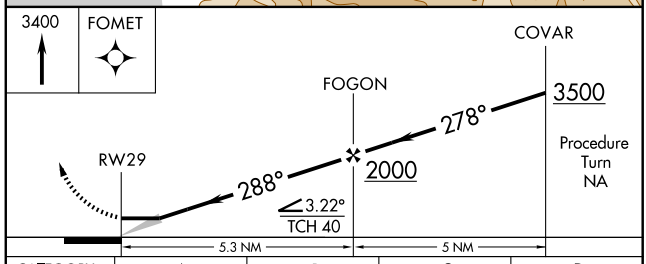
T Use Monterey altimeter setting.
A NA GPS or RNP-0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 3400 direct FOMET WP and hold.

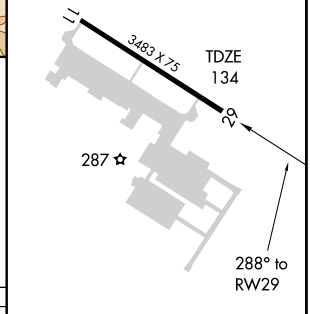
NORCAL APP CON
133.0 251.15

UNICOM
122.7 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	620-1	486 (500-1)	NA	
CIRCLING	700-1	566 (600-1)	NA	



MIRL Rwy 11-29 L

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC SNS 117.3 Chan 120	APP CRS 260°	Rwy Idg 3483 TDZE 134 Apt Elev 134

VOR/DME RWY 29

MARINA MUNI (OAR)

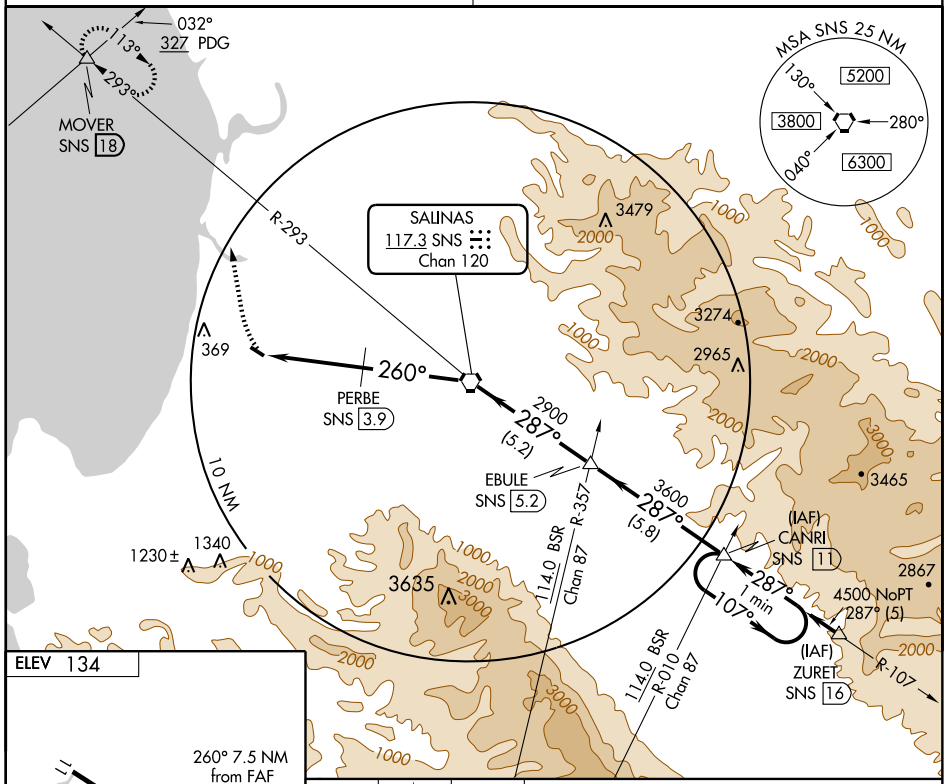
T
A NA

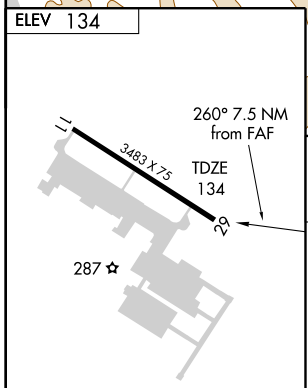
Use Monterey altimeter setting.

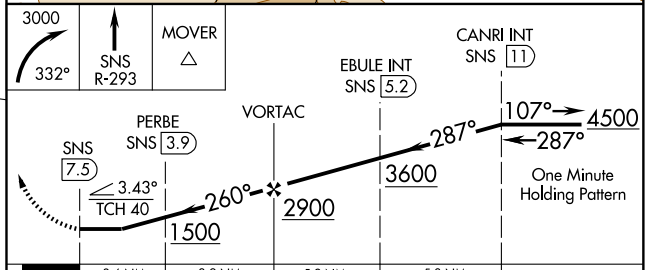
MISSED APPROACH: Climbing right turn to 3000 via heading 332° and SNS R-293 to MOVER INT/SNS 18 DME and hold.

NORCAL APP CON
133.0 251.15

UNICOM
122.7 (CTAF) L







MIRL Rwy 11-29 L

Knots	60	90	120	150	180
Min:Sec					

CATEGORY	A	B	C	D
S-29	660-1 526 (600-1)		NA	
CIRCLING	680-1 546 (600-1)	720-1 586 (600-1)	NA	

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC SNS	APP CRS	Rwy Idg	3483
117.3	082°	TDZE	134
Chan 120		Apt Elev	134

VOR RWY 11

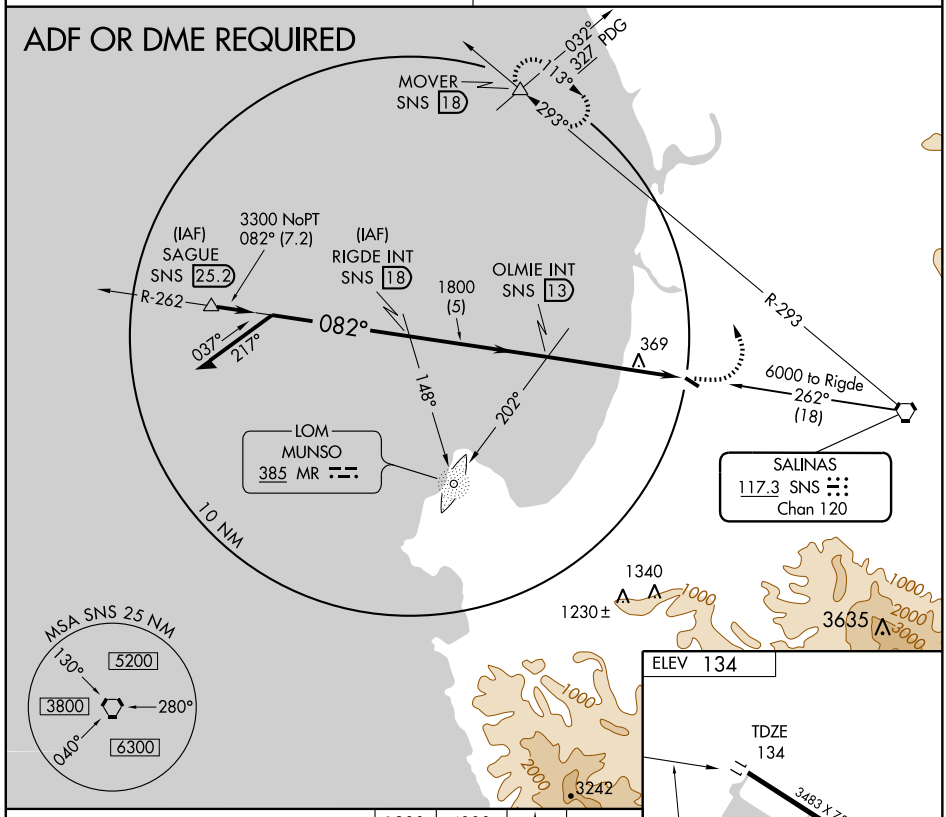
MARINA MUNI (OAR)

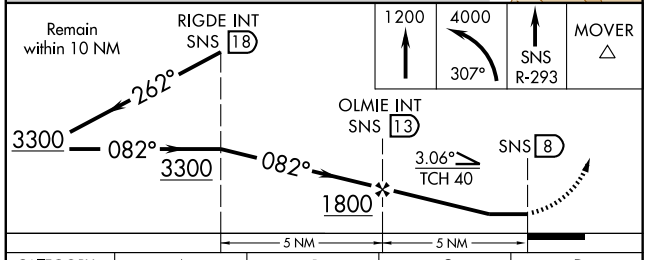
Use Monterey altimeter setting.

MISSED APPROACH: Climb to 1200, then climbing left turn to 4000 via heading 307° and SNS R-293 to MOVER Int/SNS 18 DME and hold.

NORCAL APP CON	UNICOM
133.0 251.15	122.7 (CTAF)

ADF OR DME REQUIRED





CATEGORY	A	B	C	D
S-11	720-1	586 (600-1)	NA	
CIRCLING	720-1	586 (600-1)	NA	

MIRL Rwy 11-29

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	N/A
290°	TDZE	N/A
	Apt Elev	2254

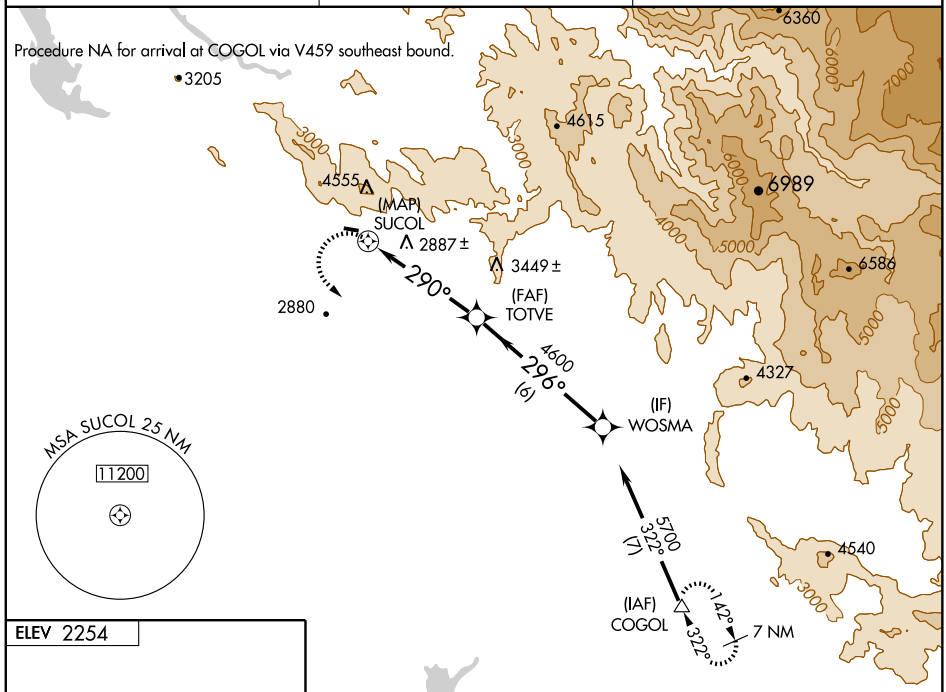
RNAV (GPS)-A
MARIPOSA-YOSEMITE (MPI)

DME/DME RNP-0.3 NA.
Circling not authorized north of Rwy 8-26.
Procedure not authorized at night.
If local altimeter setting not received, use Atwater altimeter setting and increase all MDAs 350 feet.

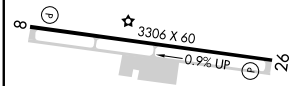
MISSED APPROACH: Climbing left turn to 7000 direct COGOL and hold.

AWOS-3	OAKLAND CENTER	UNICOM
135.6	121.25 327.0	122.7 (CTAF) L

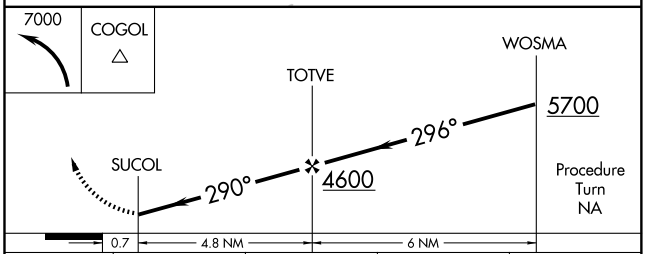
Procedure NA for arrival at COGOL via V459 southeast bound.



ELEV 2254



MIRL Rwy 8-26 L



CATEGORY	A	B	C	D
CIRCLING	3900-1¼ 1646 (1700-1¼)	3900-1½ 1646 (1700-1½)	NA	

SW-2, 14 JAN 2010 to 11 FEB 2010

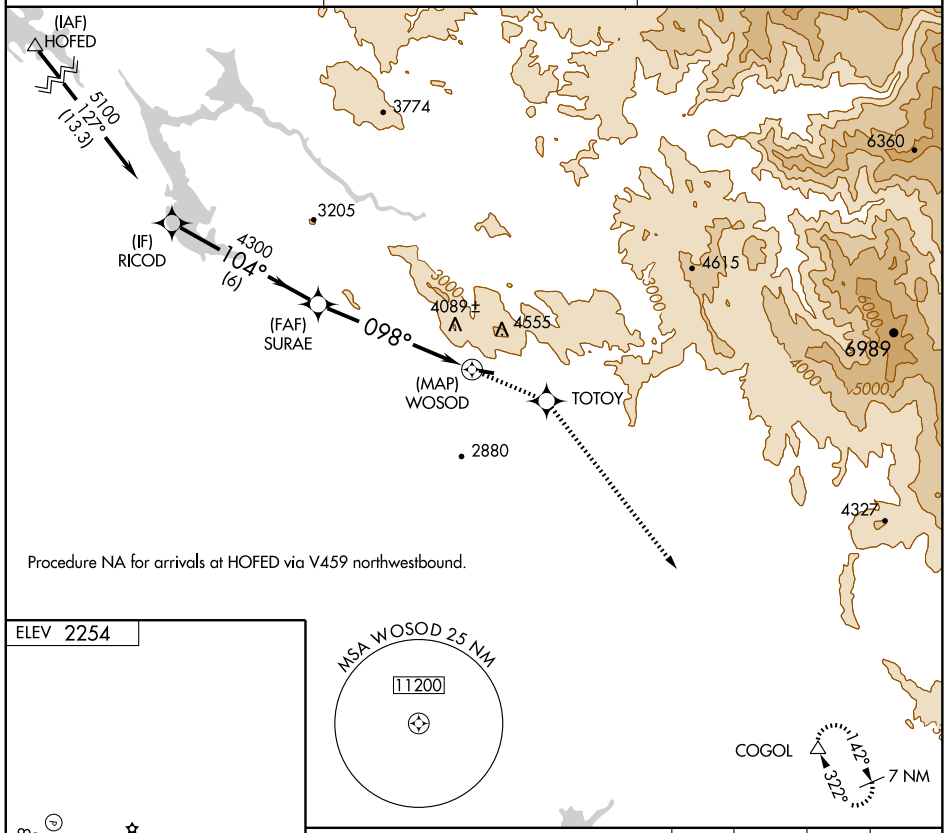
APP CRS	Rwy Idg	N/A
098°	TDZE	N/A
	Apt Elev	2254

RNAV (GPS)-B
MARIPOSA-YOSEMITE (MPI)

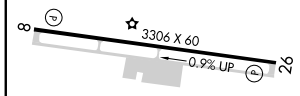
DME/DME RNP- 0.3 NA.
Circling not authorized north of Rwy 8-26.
Procedure not authorized at night.
If local altimeter setting not received, use Atwater altimeter setting and increase all MDAs 350 feet.

MISSED APPROACH: Climb to 7000 direct TOTOY and via 127° track to COGOL and hold.

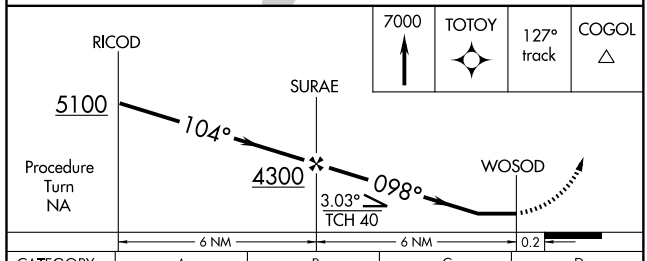
AWOS-3	OAKLAND CENTER	UNICOM
135.6	121.25 327.0	122.7 (CTAF)



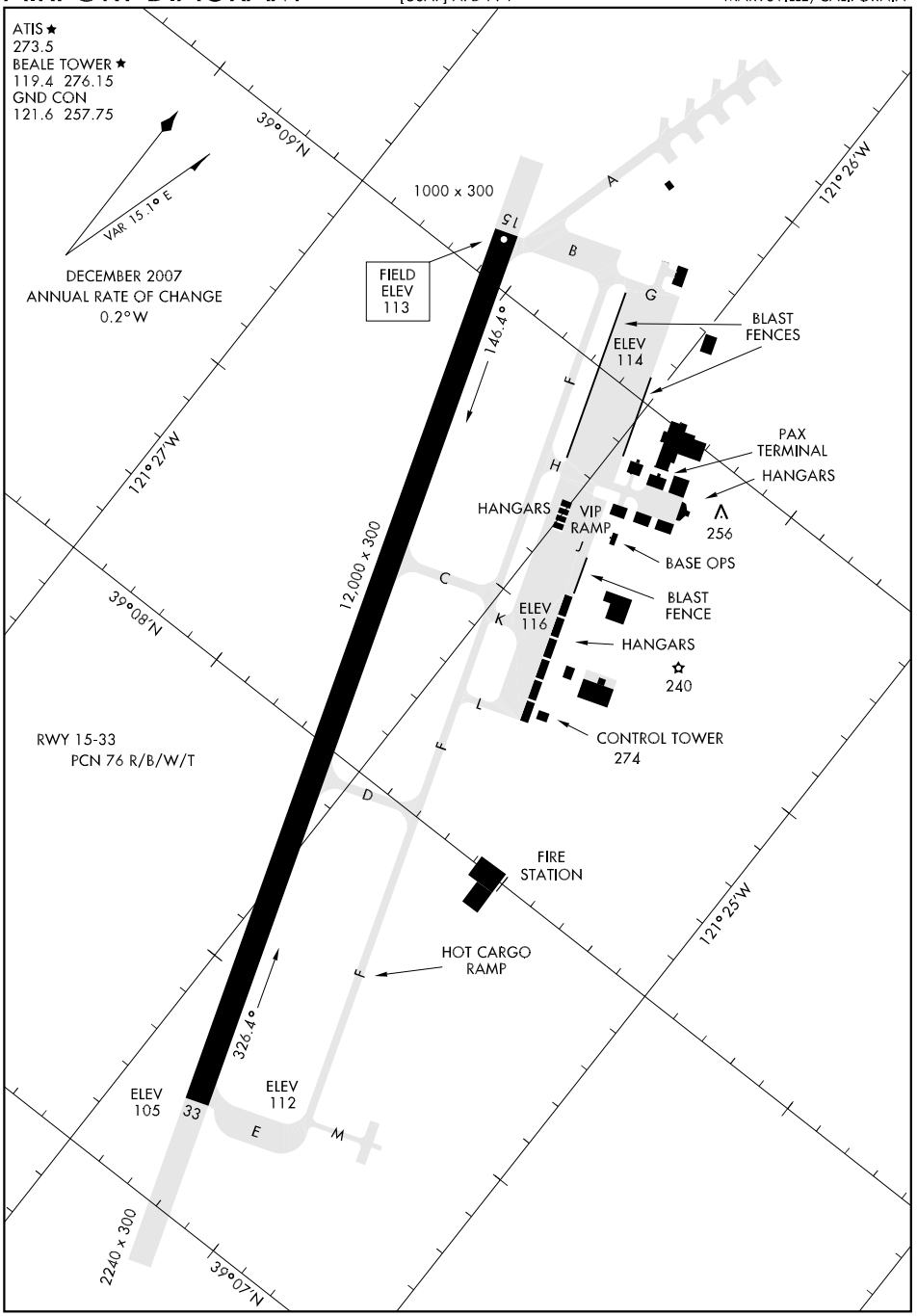
ELEV 2254



MIRL Rwy 8-26



CATEGORY	A	B	C	D
CIRCLING	4180-1¼ 1926 (2000-1¼)	4180-1½ 1926 (2000-1½)	NA	



SW-2, 14 JAN 2010 to 11 FEB 2010

HI-ILS or LOC/DME RWY 15

BEALE AFB (KBAB)

LOC I-BAB	APCH CRS	Rwy ldg 12,000 / TDZE 113 / Arpt Elev 113
109.5	145°	

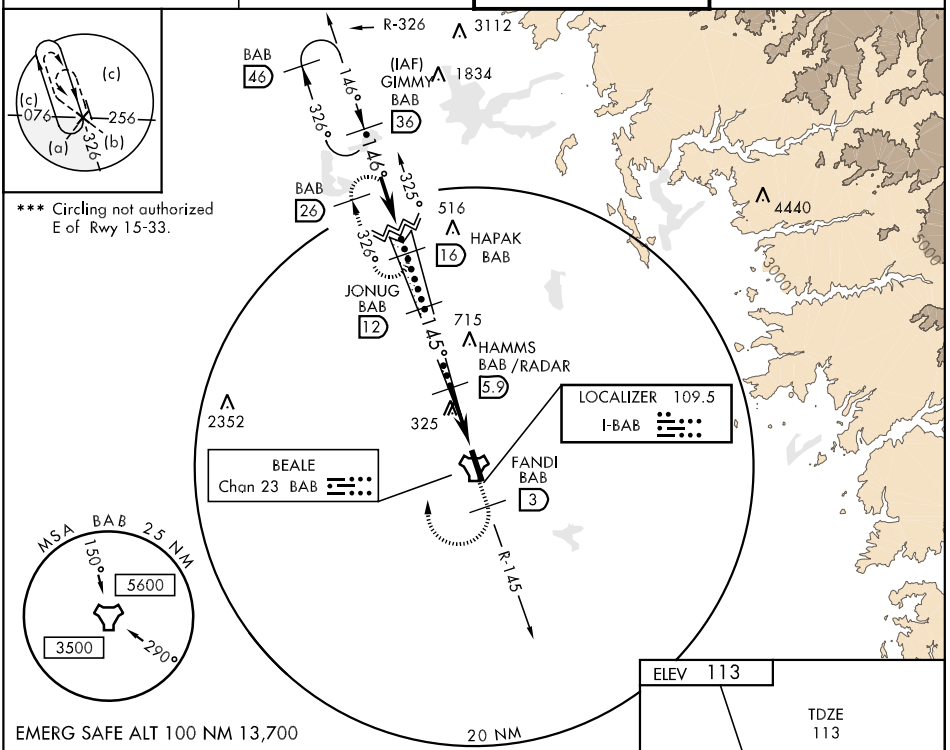
JAL-771 [USAF]

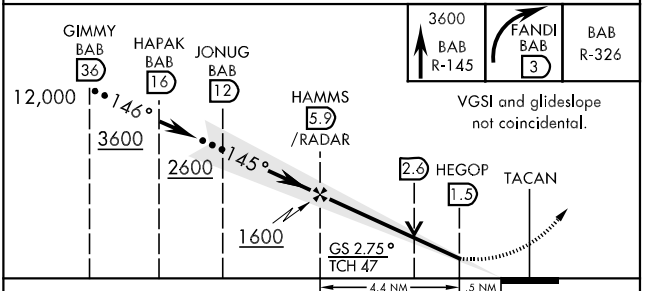
▼ * When ALS inop, increase CAT CDE RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT CD vis 1½ miles, CAT E vis to 1¾ miles.

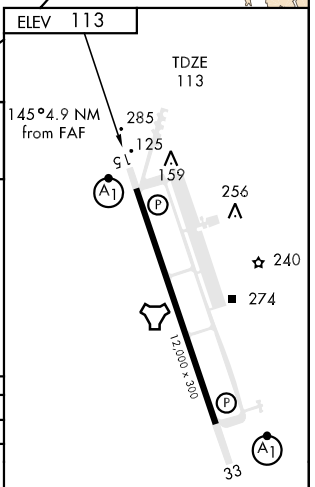
ALSF-1

MISSED APPROACH: Climb to 3600 via BAB TACAN R-145, at FANDI, turn right, intercept BAB R-326 to HAPAK and hold.

ATIS ★	NORCAL APP CON	BEALE TOWER ★	GND CON
273.5	125.4 259.1	119.4 276.15	121.6 257.75







CATEGORY	C	D	E
S-ILS 15 *	313/24 200 (200-½)		
S-LOC 15 **	620/50 507 (600-1)		620/60 507 (600-1¼)
CIRCLING ***	620-1½ 507 (600-1½)	680-2 567 (600-2)	

HI-ILS or LOC/DME RWY 15

SW-2, 14 JAN 2010 to 11 FEB 2010

HI-ILS or LOC/DME RWY 33

BEALE AFB (KBAB)

LOC I-MIZ	APCH CRS	Rwy ldg 12,000 TDZE 105 Arpt Elev 113
109.5	325°	

JAL-771 [USAF]

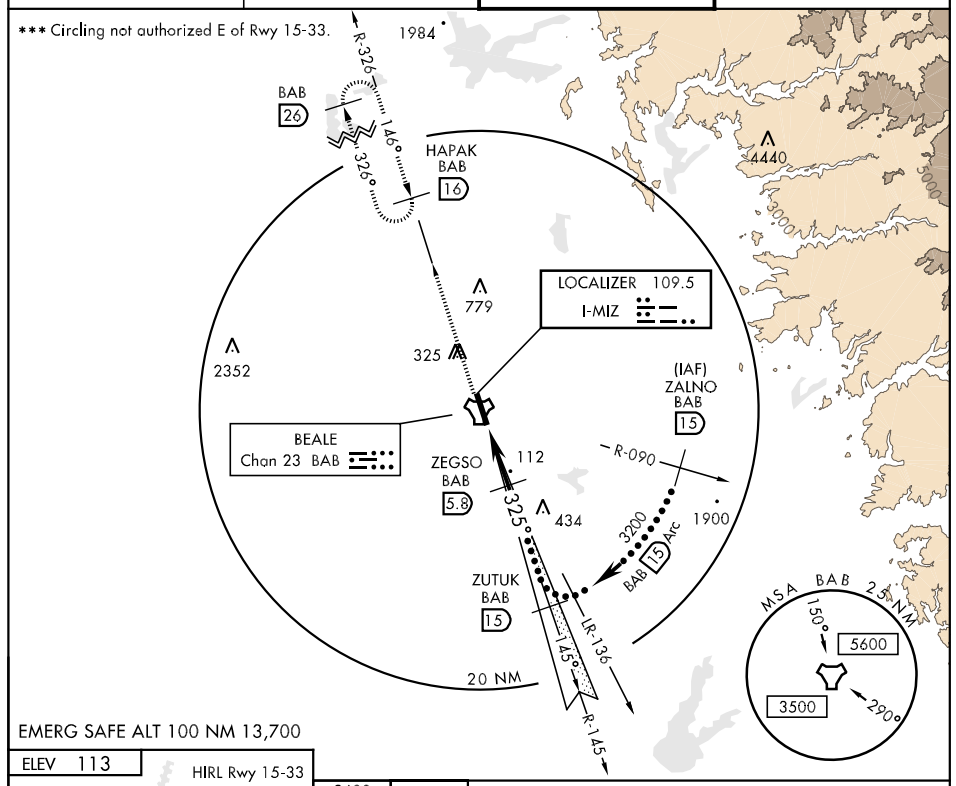
▼ * When ALS inop, increase CAT CDE RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT CD RVR to 60 and vis to 1¼ miles, CAT E vis to 1½ miles.

ALSF-1 (A1)

MISSED APPROACH: Climb to 3600 via BAB TACAN R-326 to HAPAK and hold.

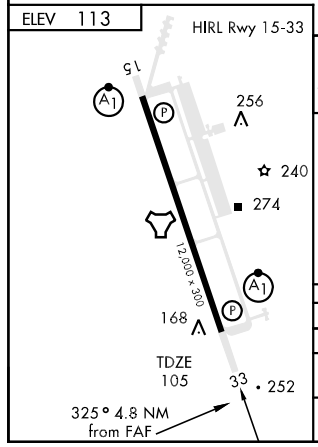
ATIS ★	NORCAL APP CON	BEALE TOWER ★	GND CON
273.5	125.4 259.1	119.4 276.15	121.6 257.75

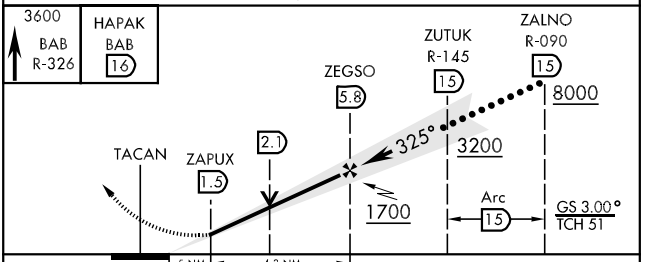
*** Circling not authorized E of Rwy 15-33.



EMERG SAFE ALT 100 NM 13,700

ELEV 113





CATEGORY	C	D	E
S-ILS 33 *	305/24 200 (200-½)		
S-LOC 33 **	520/40 415 (500-¾)		520/50 415 (500-1)
CIRCLING ***	600-1½ 487 (500-1½)	680-2 567 (600-2)	

39°08'N-121°26'W

HI-ILS or LOC/DME RWY 33

HI-TACAN RWY 15

TACAN	APCH CRS	Rwy ldg	12,000
BAB Chan 23	153°	TDZE	113
		Arpt Elev	113

JAL-771 [USAF]

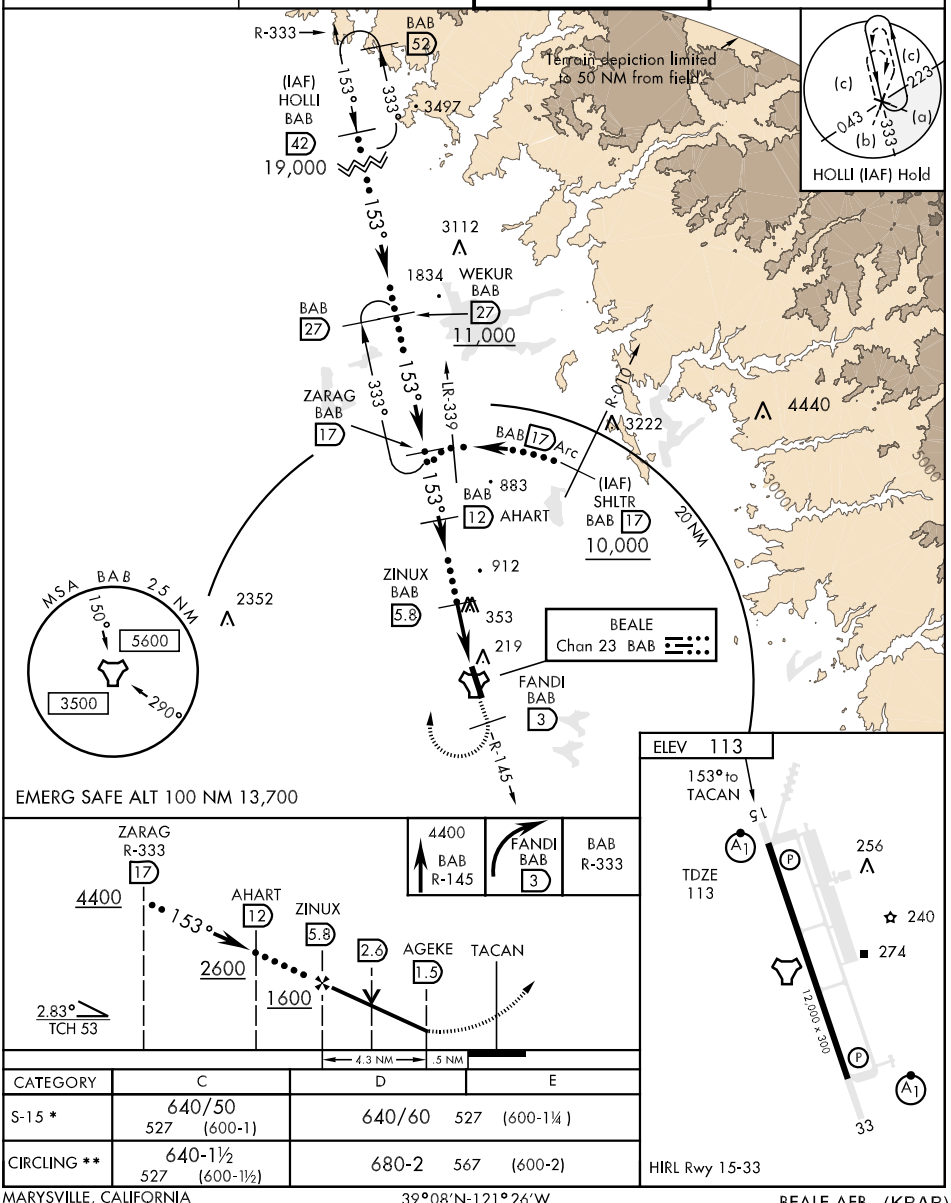
BEALE AFB (KBAB)

▼ * When ALS inop, increase CAT C vis to 1½ miles, CAT DE vis to 1¾ miles.
** Circling not authorized E of Rwy 15-33.

ALSF-1

MISSED APPROACH: Climb to 4400 via BAB TACAN R-145, at FANDI, turn right, intercept BAB R-333 to ZARAG and hold, continue climb in hold to 4400.

ATIS ★	NORCAL APP CON	BEALE TOWER ★	GND CON
273.5	125.4 259.1	119.4 276.15	121.6 257.75



CATEGORY	C	D	E
S-15 *	640/50 527 (600-1)	640/60 527 (600-1¼)	
CIRCLING **	640-1½ 527 (600-1½)	680-2 567 (600-2)	

MARYSVILLE, CALIFORNIA

HI-TACAN RWY 33

BEALE AFB (KBAB)

TACAN	APCH CRS	Rwy ldg	TDZE	Arpt Elev
BAB Chan 23	317°	12,000	105	113

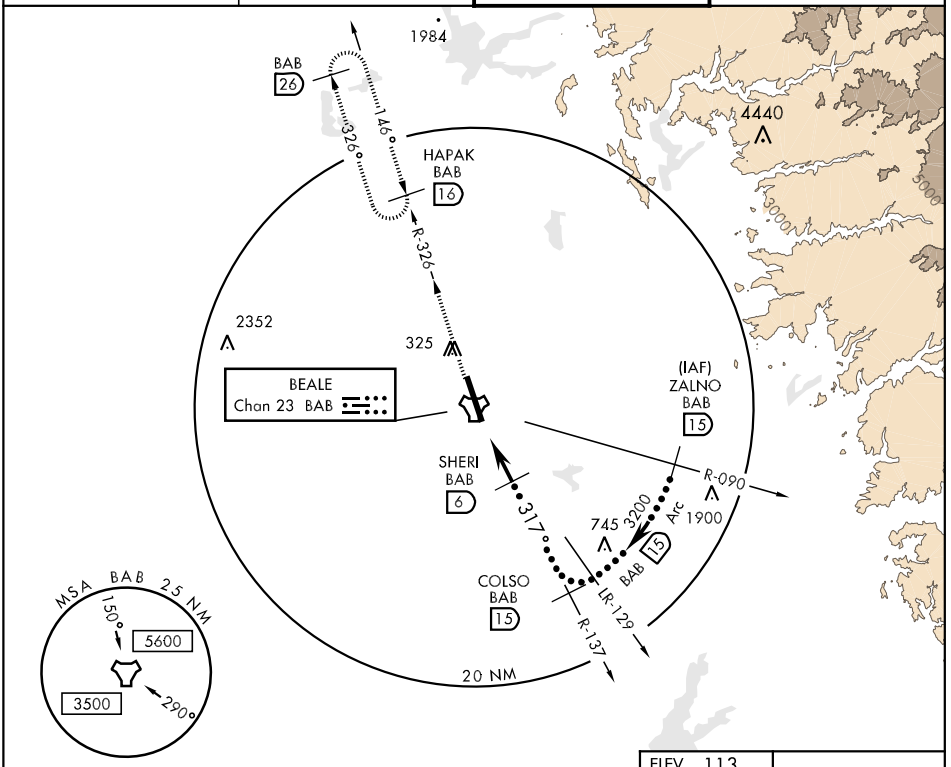
JAL-771 [USAF]

▼ * When ALS inop, increase CAT C RVR to 60 and vis to 1¼ miles, CAT D vis to 1½ miles, CAT E vis to 1¾ miles.
** Circling not authorized E of Rwy 15-33.

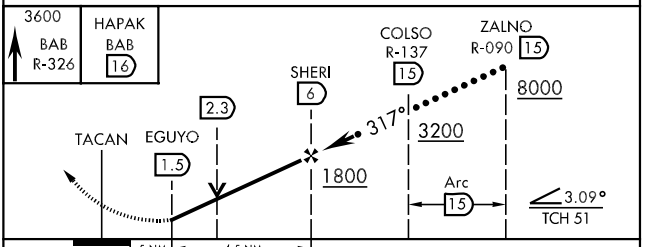
ALSF-1

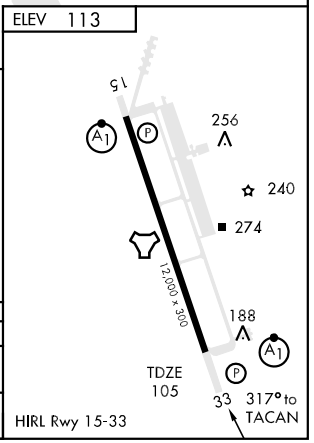
MISSED APPROACH: Climb to 3600 via BAB TACAN R-326 to HAPAK and hold.

ATIS ★	NORCAL APP CON	BEALE TOWER ★	GND CON
273.5	125.4 259.1	119.4 276.15	121.6 257.75



EMERG SAFE ALT 100 NM 13,700





CATEGORY	C	D	E
S-33 *	580/40 475 (500-¾)	580/50 475 (500-1)	580/60 475 (500-1¼)
CIRCLING **	600-1½ 487 (500-1½)	680-2 567 (600-2)	

SW-2, 14 JAN 2010 to 11 FEB 2010

ILS or LOC/DME RWY 15

LOC I-BAB	APCH CRS	Rwy ldg 12,000 TDZE 113 Arpt Elev 113
109.5	145°	

AL-771 [USAF]

BEALE AFB (KBAB)

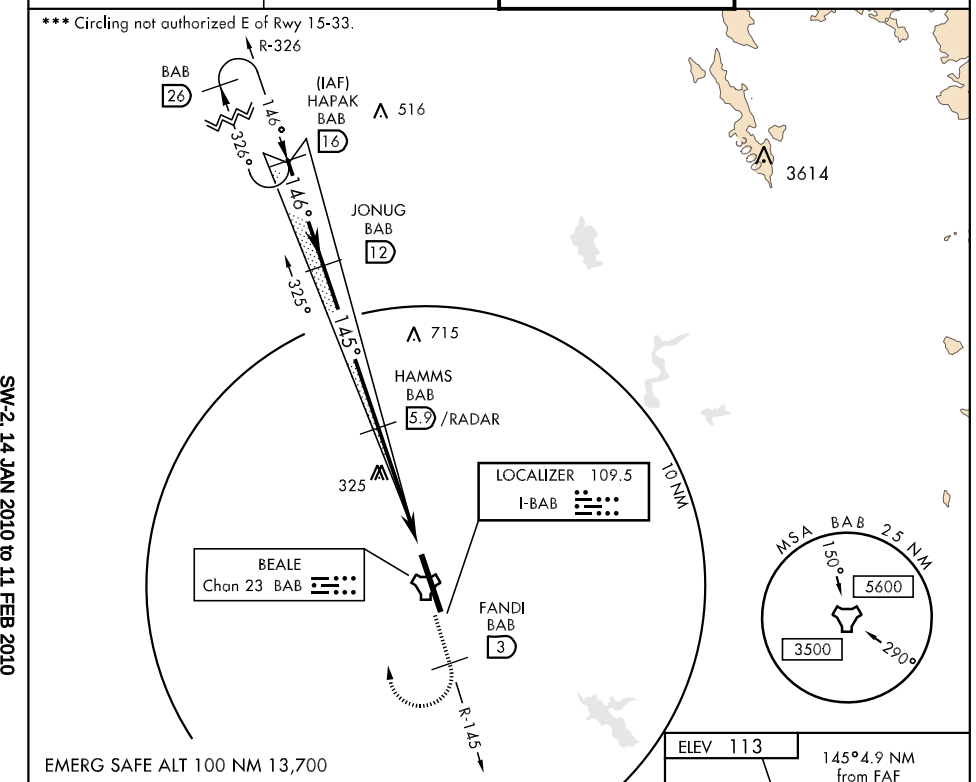
▼ * When ALS inop, increase all CAT RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT CD vis to 1½ miles, CAT E vis to 1¾ miles.

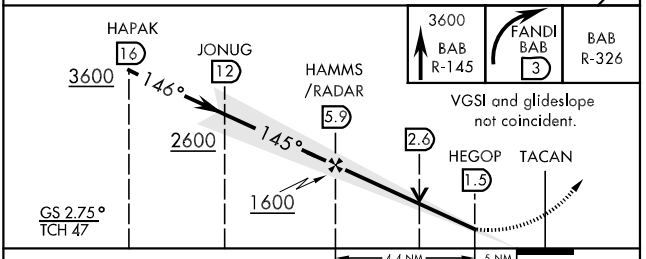
ALSF-1

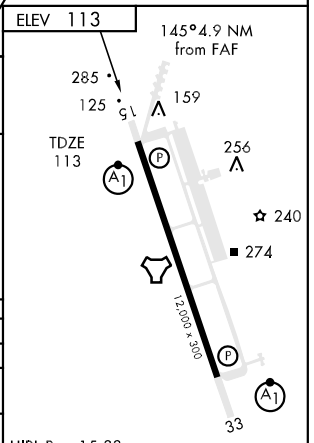
MISSED APPROACH: Climb to 3600 via BAB TACAN R-145, at FANDI turn right, intercept BAB R-326 to HAPAK and hold.

ATIS ★	NORCAL APP CON	BEALE TOWER ★	GND CON
273.5	125.4 259.1	119.4 276.15	121.6 257.75

*** Circling not authorized E of Rwy 15-33.







CATEGORY	A	B	C	D	E
S-ILS 15 *	313/24		200 (200-½)		
S-LOC 15 **	620/24 507 (600-½)		620/50 507 (600-1)		620/60 507 (600-1¼)
CIRCLING ***	620-1 507 (600-1)		620-1½ 507(600-1½)	680-2 567 (600-2)	

SW-2, 14 JAN 2010 to 11 FEB 2010

ILS or LOC/DME RWY 33

LOC I-MIZ	APCH CRS	Rwy ldg 12,000 TDZE 105 Arpt Elev 113
109.5	325°	

AL-771 [USAF]

BEALE AFB (KBAB)

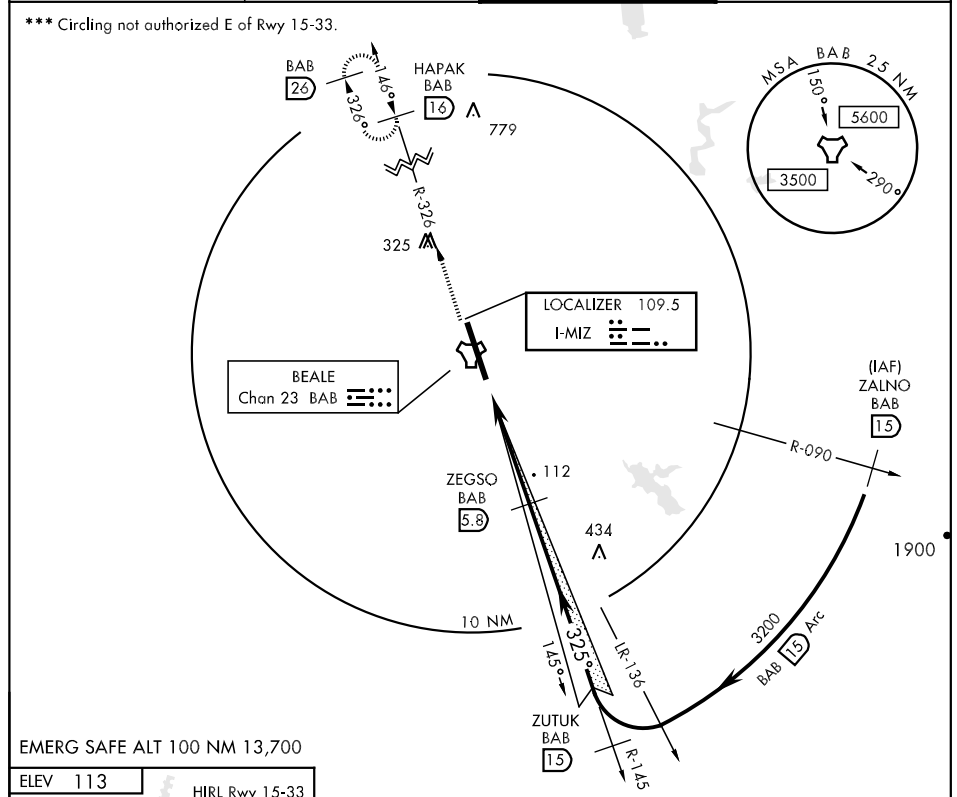
▼ * When ALS inop, increase CAT ABCDE RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT CD RVR to 60 and vis to 1¼ miles, CAT E vis to 1½ miles.

ALSF-1 (A1)

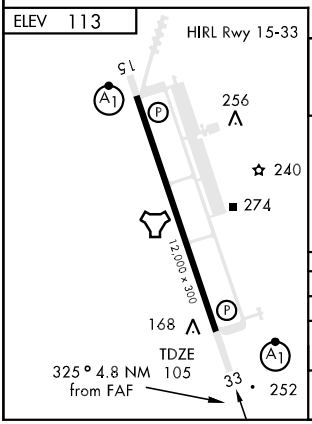
MISSED APPROACH: Climb to 3600 via BAB TACAN R-326 to HAPAK and hold.

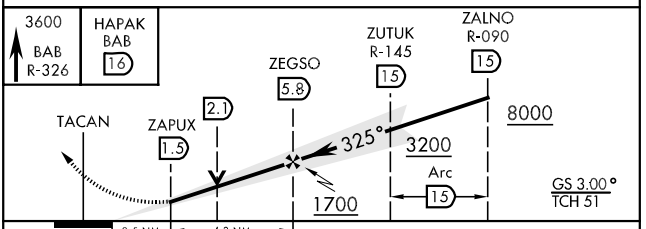
ATIS ★	NORCAL APP CON	BEALE TOWER ★	GND CON
273.5	125.4 259.1	119.4 276.15	121.6 257.75

*** Circling not authorized E of Rwy 15-33.



EMERG SAFE ALT 100 NM 13,700





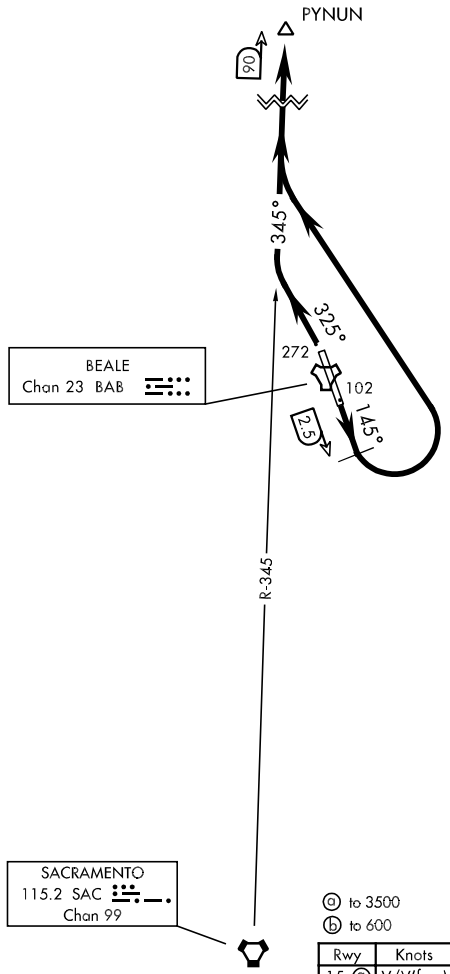
CATEGORY	A	B	C	D	E
S-ILS 33 *	305/24		200 (200-½)		
S-LOC 33 **	520/24 415 (500-½)		520/40 415 (500-¾)		520/50 415 (500-1)
CIRCLING ***	600-1 487 (500-1)		600-1½ 487(500-1½)	680-2 567 (600-2)	

ILS or LOC/DME RWY 33

ATIS★ 273.5
GND CON
121.6 257.75
BEALE TOWER ★
119.4 276.15
NORCAL DEP CON
125.4 259.1

SHL-771 [USAF]

6768



ⓐ to 3500
ⓑ to 600

Minimum Climb Rate

Rwy	Knots	60	120	180	240	300	360
15 ⓐ	V/V(fpm)	260	520	780	1040	1300	1560
33 ⓑ	V/V(fpm)	260	520	780	1040	1300	1560

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 15: Fly heading 145° until BAB TACAN 2.5 DME, turn left intercept SAC VORTAC R-345 to PYNUN. Then via assigned route.

TAKE-OFF RWY 33: Fly heading 325° intercept SAC VORTAC R-345 to PYNUN. Then via assigned route.

TACAN RWY 15

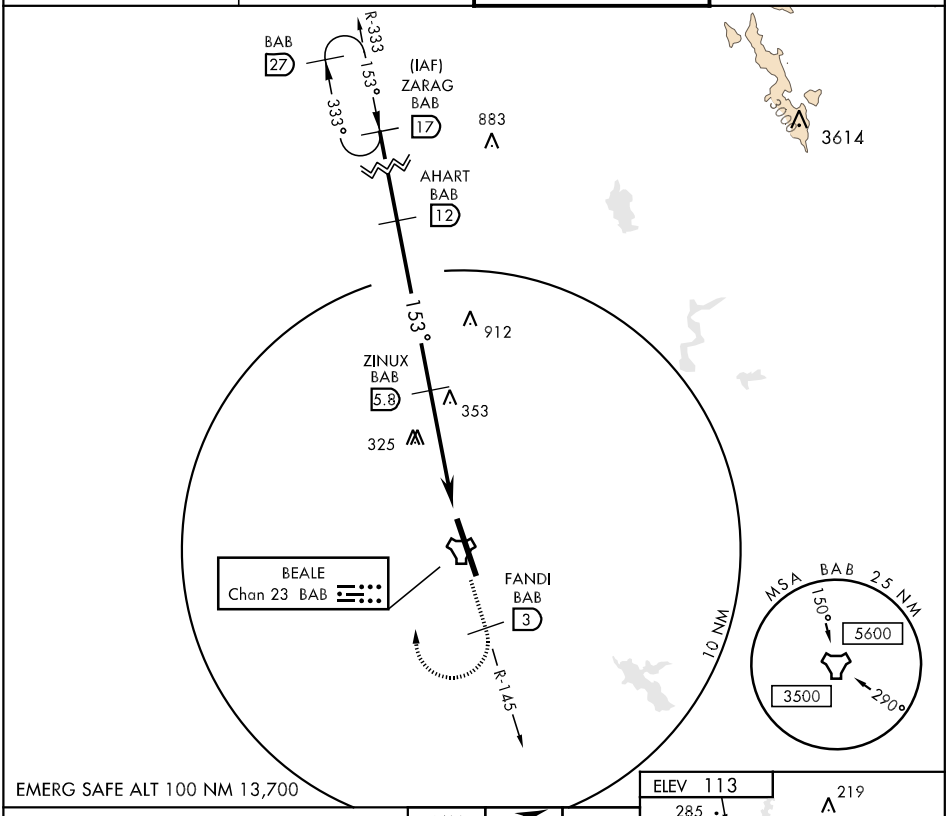
TACAN BAB Chan 23	APCH CRS 153°	Rwy ldg 12,000 TDZE 113 Arpt Elev 113	AL-771 [USAF]	BEALE AFB (KBAB)

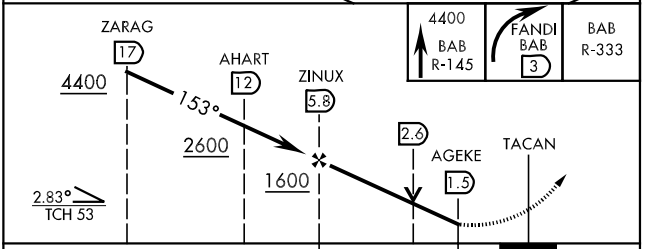
▼ * When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C vis to 1½ miles, CAT DE vis to 1¾ miles.
** Circling not authorized E of Rwy 15-33.

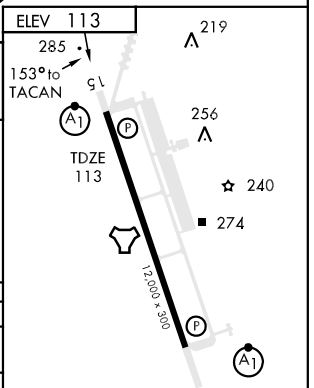
ALSF-1

MISSED APPROACH: Climb to 4400 via BAB TACAN R-145, at FANDI, turn right, intercept BAB R-333 to ZARAG and hold, continue climb in hold to 4400.

ATIS ★	NORCAL APP CON	BEALE TOWER ★	GND CON
273.5	125.4 259.1	119.4 276.15	121.6 257.75







CATEGORY	A	B	C	D	E
S-15 *	640/24 527 (600-½)		640/50 527 (600-1)	640/60 527 (600-1¼)	
CIRCLING **	640-1 527 (600-1)		640-1½ 527 (600-1½)	680-2 567 (600-2)	

MARYSVILLE, CALIFORNIA

TACAN RWY 33

TACAN	APCH CRS	Rwy ldg	12,000
BAB		TDZE	105
Chan 23	317°	Arpt Elev	113

AL-771 [USAF]

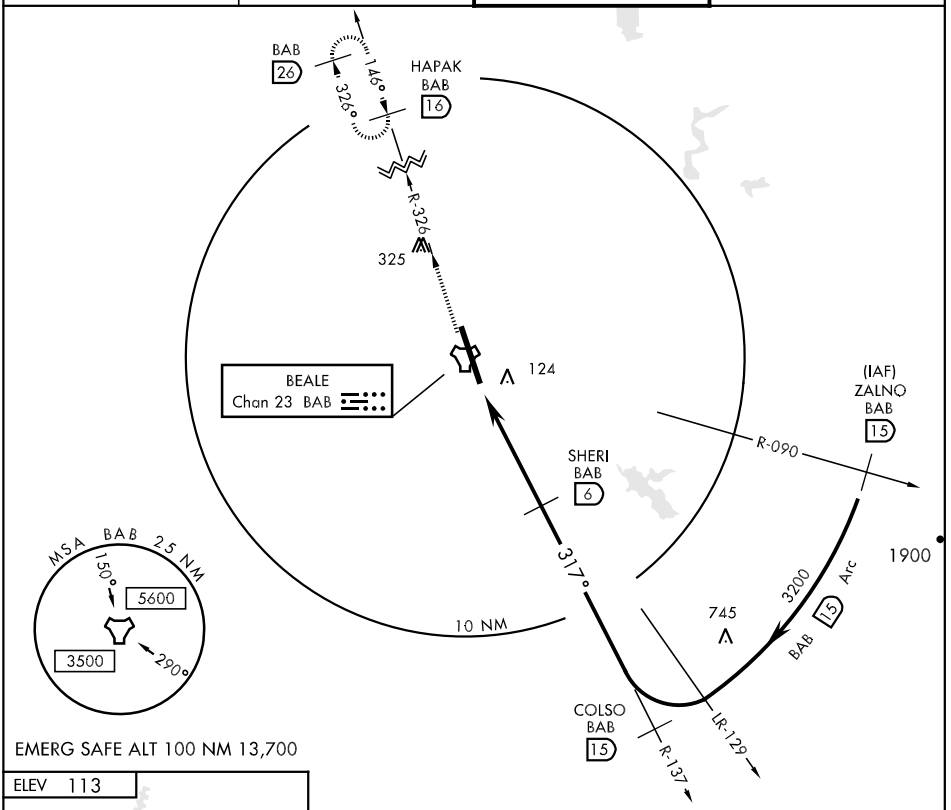
BEALE AFB (KBAB)

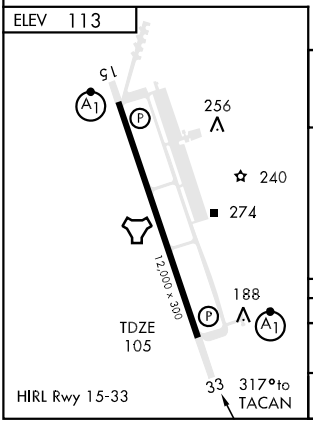
▼ * When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C RVR to 60 and vis to 1¼ miles, CAT D vis to 1½ miles, CAT E vis to 1¾ miles.
** Circling not authorized E of Rwy 15-33.

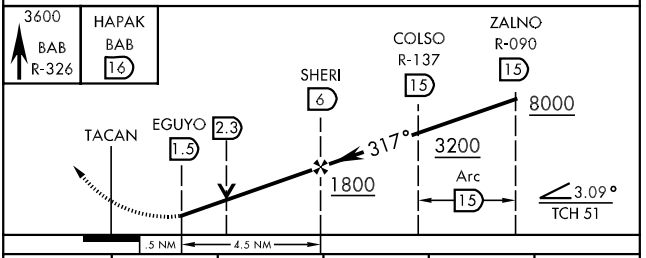
ALSF-1

MISSED APROACH: Climb to 3600 via BAB TACAN R-326 to HAPAK and hold.

ATIS ★	NORCAL APP CON		BEALE TOWER ★		GND CON	
273.5	125.4	259.1	119.4	276.15	121.6	257.75







CATEGORY	A	B	C	D	E
S-33 *	580/24 475 (500-½)		580/40 475 (500-¾)	580/50 475 (500-1)	580/60 475 (500-1¼)
CIRCLING **	600-1 487 (500-1)		600-1½ 487 (500-1½)	680-2 567 (600-2)	

MARYSVILLE, CALIFORNIA — 39°08'N-121°26'W — BEALE AFB (KBAB)

Orig 09155

TACAN RWY 33

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC I-MYV	APP CRS	Rwy Idg 6006
110.5	141°	TDZE 61
		Apt Elev 62

ILS or LOC RWY 14

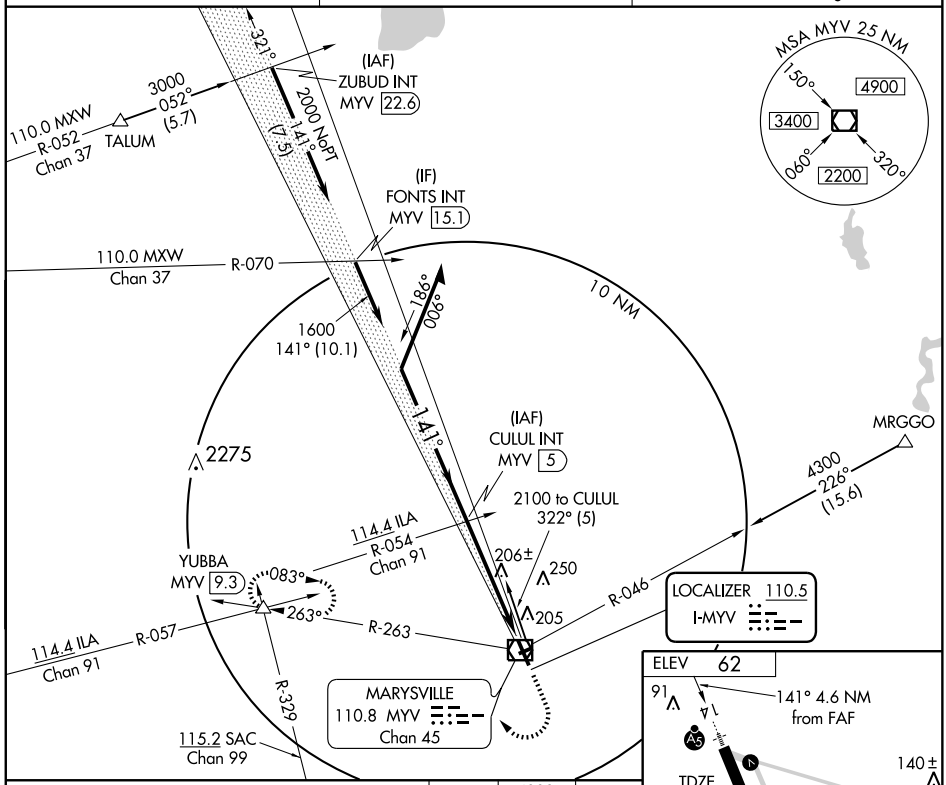
MARYSVILLE/ YUBA COUNTY (MYV)

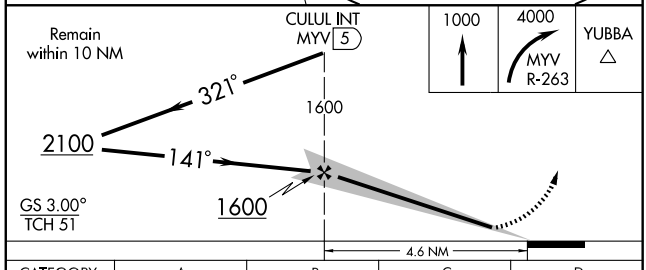
T NA — If local altimeter setting not received, use Oroville Muni altimeter setting and increase all DAs/MDAs 80 feet. Autopilot coupled approach NA below 576.

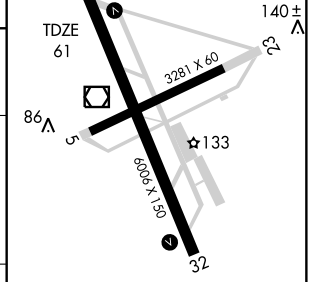
MALSR

MISSED APPROACH: Climb to 1000, then climbing right turn to 4000 via MYV R-263 to YUBBA INT/MYV VOR/DME 9.3 DME and hold. Continue climb in hold to 4000.

ASOS	NORCAL APP CON	UNICOM
118.475	125.4 259.1	123.05 (CTAF) L







REIL Rwy 14
HIRL Rwy 14-32 L
100

CATEGORY	A	B	C	D
S-ILS 14	261-½ 200 (200-½)			
S-LOC 14	460-½ 399 (400-½)			460-¾ 399 (400-¾)
CIRCLING	540-1 478 (500-1)		540-1½ 478 (500-1½)	620-2 558 (600-2)

FAF to MAP 4.6 NM

Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 42814 W14A	APP CRS 141°	Rwy Idg 6006 TDZE 64 Apt Elev 64

RNAV (GPS) RWY 14

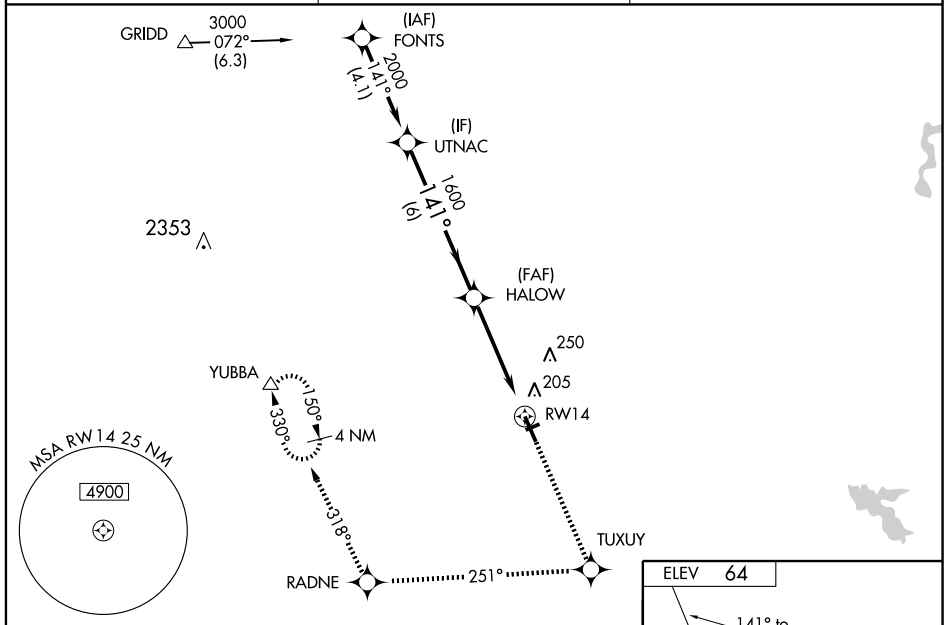
MARYSVILLE/YUBA COUNTY (MYV)

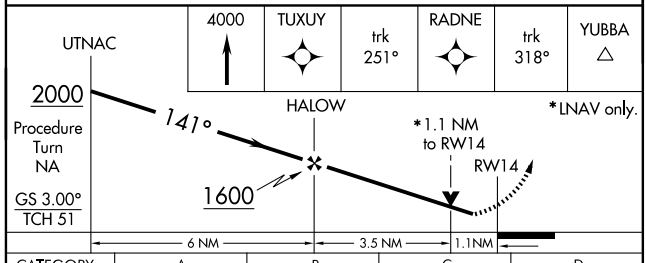
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Baro-VNAV and VDP NA when using Lincoln altimeter setting. When local altimeter setting not received, use Lincoln altimeter setting and increase all DA 44 feet and all MDA 60 feet. Inoperative table does not apply to LPV all Cats. For inoperative MALSR increase LNAV all Cats visibility ¼ mile. For inoperative MALSR when using Lincoln altimeter setting, increase LNAV Cats A and B visibility ¼ mile.

MALSR

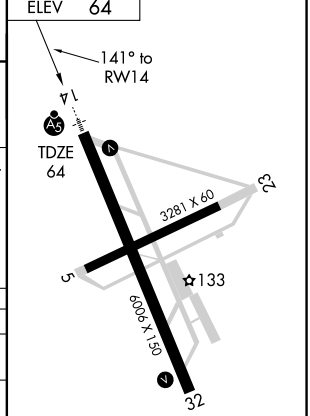
MISSED APPROACH: Climb to 4000 direct TUXUY and via track 251° to RADNE and via track 318° to YUBBA and hold.

ASOS	NORCAL APP CON	UNICOM
118.475	125.4 259.1	123.05 (CTAF) L





CATEGORY	A	B	C	D
LPV DA	264-¾ 200 (200-¾)			
LNAV/VNAV DA	470-1 406 (500-1)			
LNAV MDA	460-¾ 396 (400-¾)			460-1 396 (400-1)
CIRCLING	540-1 476 (500-1)		540-1½ 476 (500-1½)	620-2 556 (600-2)



REIL Rwy 14
HIRL Rwy 14-32 L

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	6006
CH 87014	321°	TDZE	63
W32A		Apt Elev	64

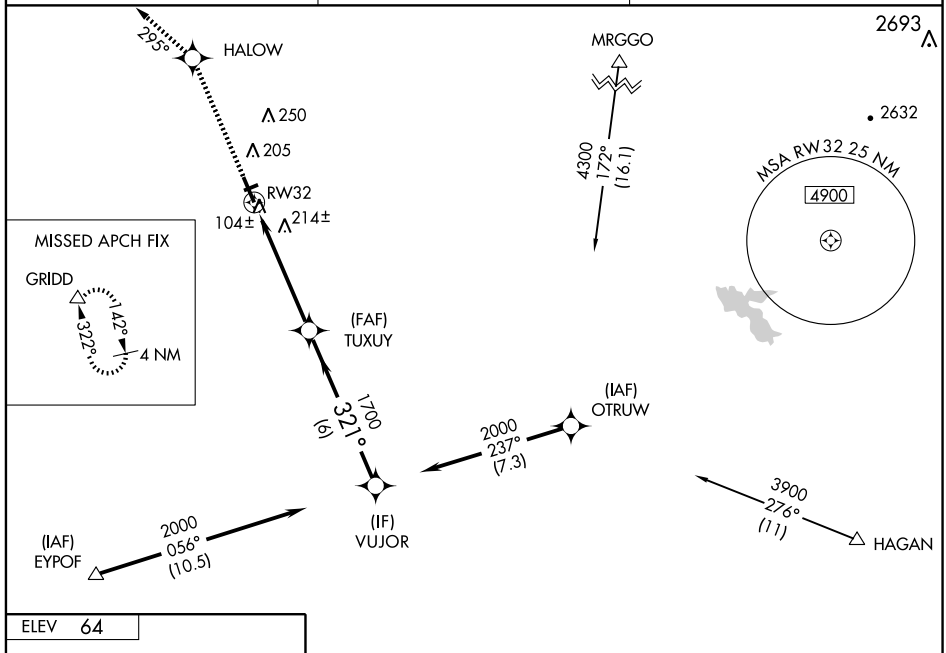
RNAV (GPS) RWY 32

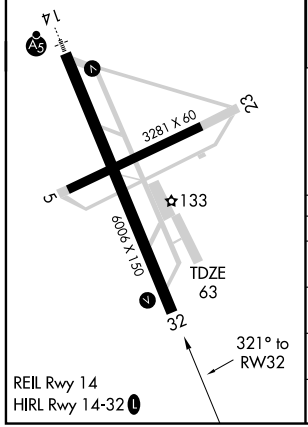
MARYSVILLE/ YUBA COUNTY (MYV)

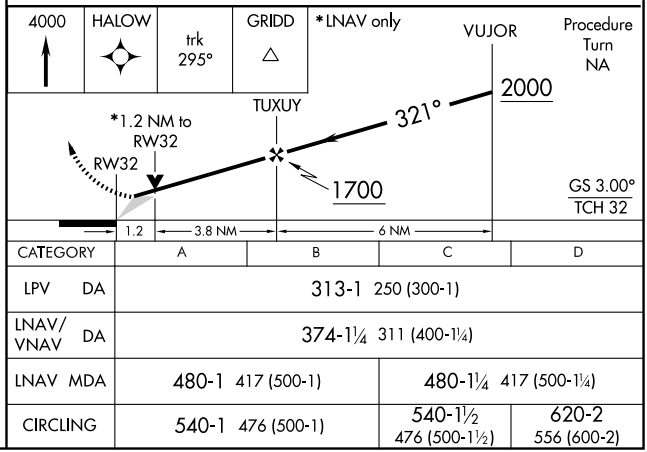
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Lincoln altimeter setting and increase all DA 44 feet and all MDA 60 feet and increase LNAV Cat D visibility ¼ mile. Baro-VNAV and VDP NA when using Lincoln altimeter setting.

MISSED APPROACH: Climb to 4000 direct HALOW and via track 295° to GRIDD and hold.

ASOS	NORCAL APP CON	UNICOM
118.475	125.4 259.1	123.05 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	313-1 250 (300-1)			
LNAV/ VNAV DA	374-1¼ 311 (400-1¼)			
LNAV MDA	480-1 417 (500-1)		480-1¼ 417 (500-1¼)	
CIRCLING	540-1 476 (500-1)		540-1½ 476 (500-1½)	620-2 556 (600-2)

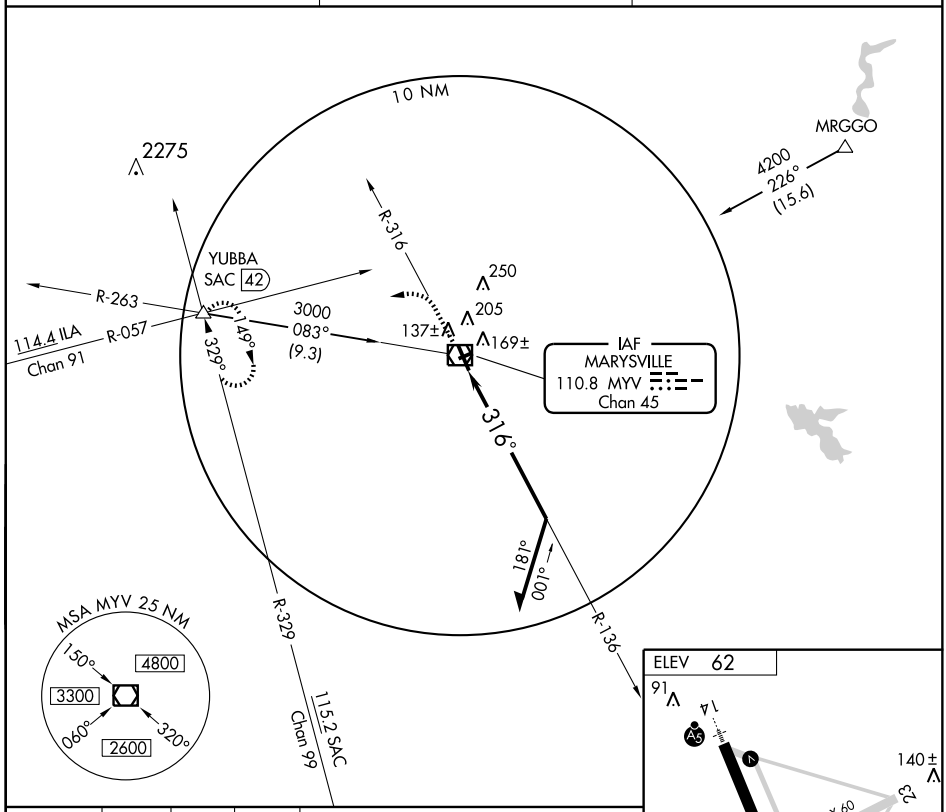
VOR/DME MYV	APP CRS	Rwy Idg	6006
110.8	316°	TDZE	61
Chan 45		Apt Elev	62

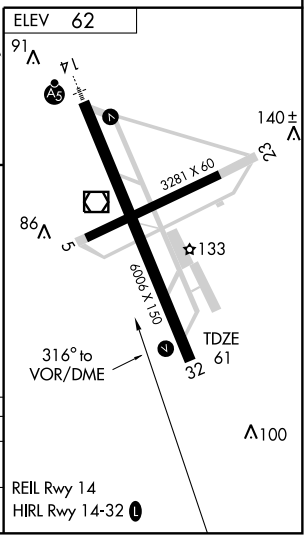
VOR RWY 32

MARYSVILLE/ YUBA COUNTY (MYV)

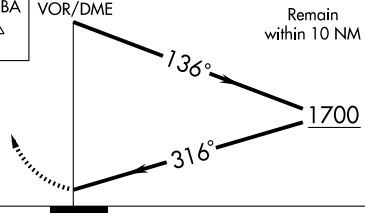
MISSED APPROACH: Climb to 2300 via MYV R-316, then climbing left turn to 4000 via heading 230° and SAC R-329 to YUBBA Int/SAC 42 DME and hold.

ASOS	NORCAL APP CON	UNICOM
118.475	125.4 259.1	123.05 (CTAF) L





2300	4000	SAC	YUBBA
MYV R-316	230°	R-329	△
		115.2	



CATEGORY	A	B	C	D
S-32	540-1	479 (500-1)	540-1¼ 479 (500-1¼)	540-1½ 479 (500-1½)
CIRCLING	540-1	478 (500-1)	540-1½ 478 (500-1½)	620-2 558 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	5914
123°	TDZE	155
	Apt Elev	155

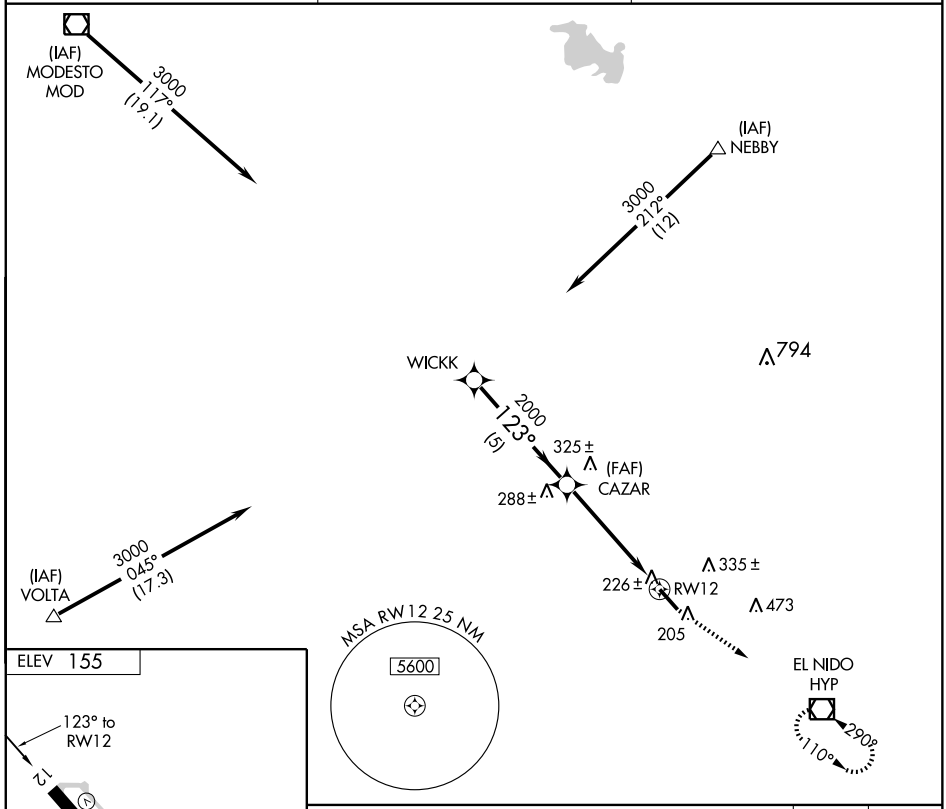
GPS RWY 12

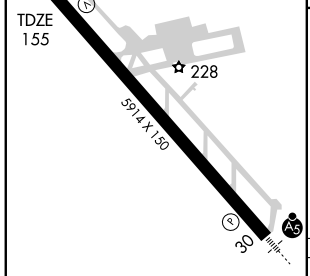
MERCED RGNL/MACREADY FIELD (MCE)

When local altimeter setting not received, use Castle altimeter setting and increase all MDAs 20 feet. Circling NA NE of Rwy 12-30.

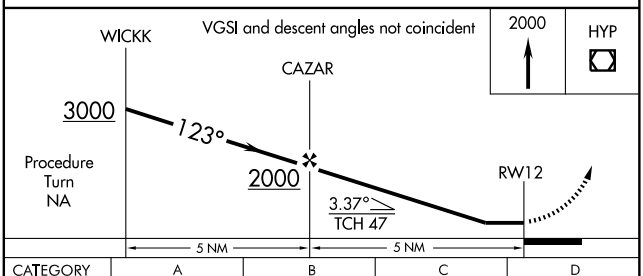
MISSED APPROACH: Climb to 2000 direct HYP VOR/DME and hold.

ASOS	NORCAL APP CON	UNICOM
132.175	120.95 269.4	122.7 (CTAF) L





REIL Rwy 12
HIRL Rwy 12-30 L



CATEGORY	A	B	C	D
S-12	520-1 365 (400-1)			520-1¼ 365 (400-1¼)
CIRCLING	560-1 405 (500-1)	620-1 465 (500-1)	620-1½ 465 (500-1½)	720-2 565 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-MCE	APP CRS	Rwy Idg	5914
109.3	303°	TDZE	155
Chan 30		Apt Elev	155

ILS or LOC RWY 30

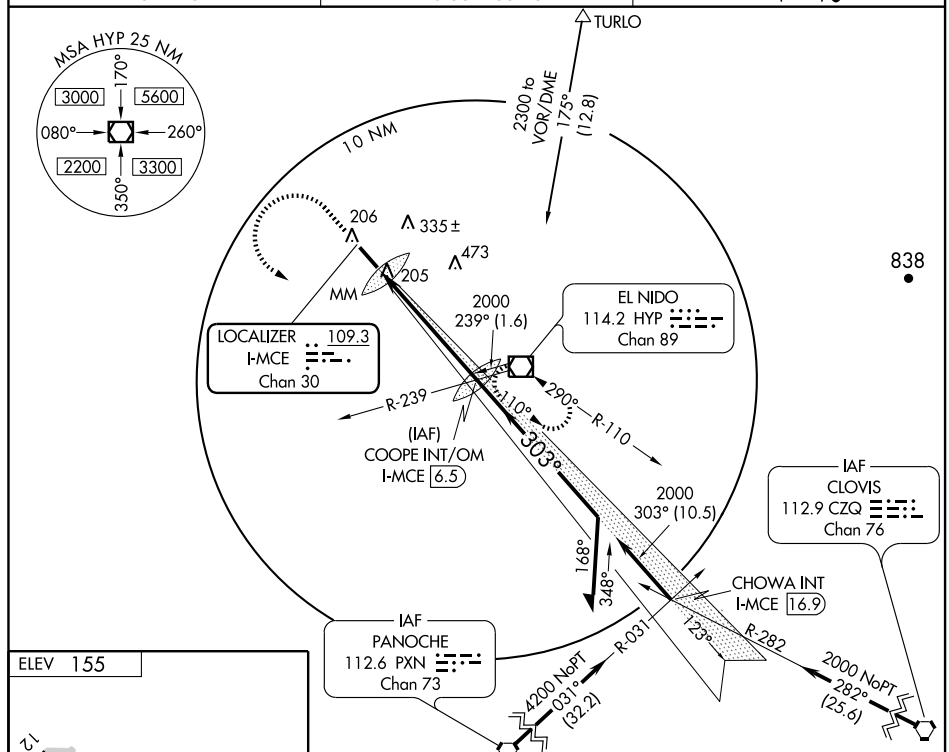
MERCED RGNL/MACREADY FIELD (MCE)

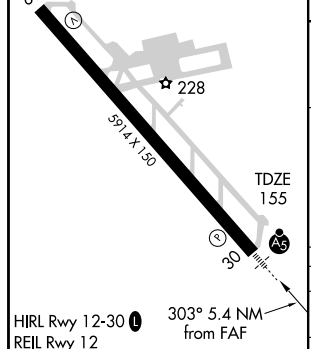
When local altimeter setting not received, use Castle altimeter setting and increase all DA/MDA 20 feet. Autopilot coupled approach NA below 585. For inoperative MALSR increase S-LOC 30 Cat D visibility to 1. Circling NA NE of Rwy 12-30.

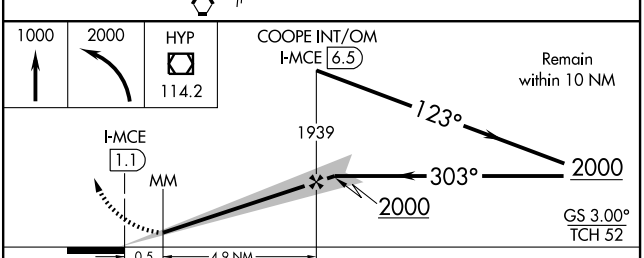
MALSR

MISSED APPROACH: Climb to 1000 then climbing left turn to 2000 direct HYP VOR/DME and hold.

ASOS	NORCAL APP CON	UNICOM
132.175	120.95 269.45	122.7 (CTAF) L







CATEGORY	A	B	C	D
S-ILS 30	355-½ 200 (200-½)			
S-LOC 30	480-½ 325 (400-½)			480-¾ 325 (400-¾)
CIRCLING	560-1 405 (500-1)	620-1 465 (500-1)	620-1½ 465 (500-1½)	720-2 565 (600-2)

FAF to MAP 5.4 NM

Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-MCE	APP CRS	Rwy Idg	5914
109.3	123°	TDZE	155
Chan 30		Apt Elev	155

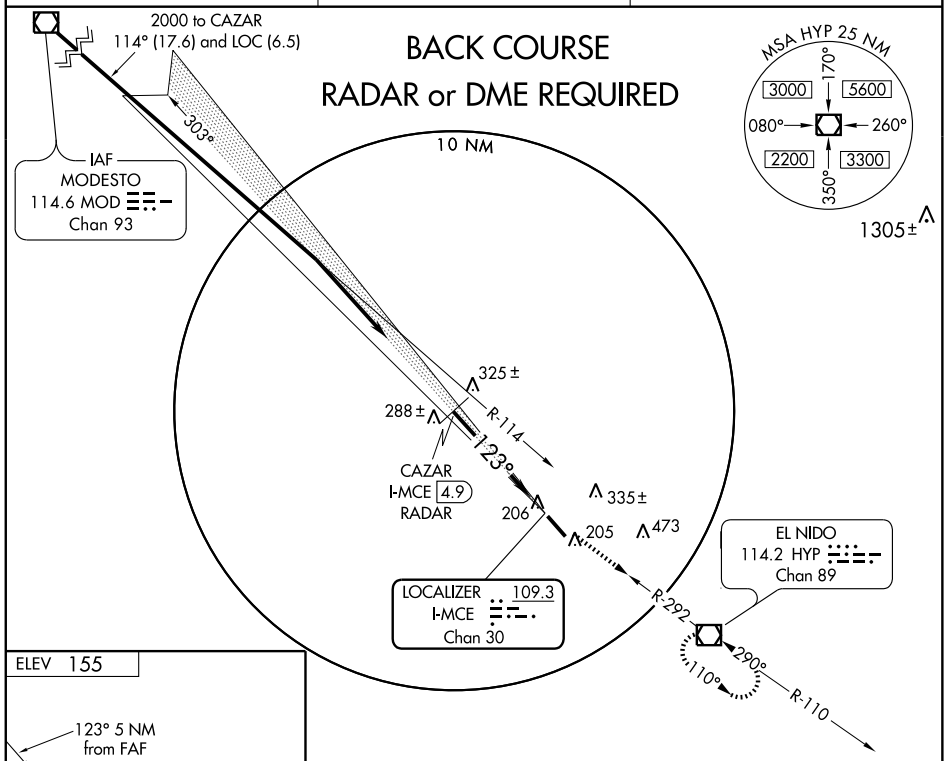
LOC BC RWY 12

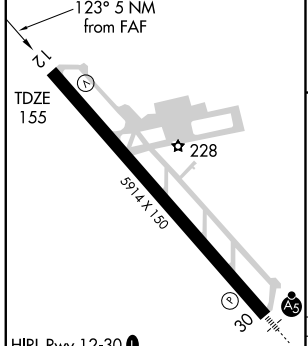
MERCED RGNL/MACREADY FIELD (MCE)

When local altimeter setting not received, use Castle altimeter setting and increase all MDAs 20 feet. Circling NA NE of Rwy 12-30.

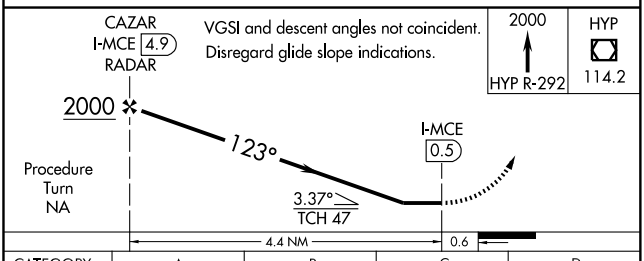
MISSED APPROACH: Climb to 2000 via HYP R-292 to HYP VOR/DME and hold.

ASOS	NORCAL APP CON	UNICOM
132.175	120.95 269.45	122.7 (CTAF) L





FAF to MAP 4.4 NM					
Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28



CATEGORY	A	B	C	D
S-12	520-1 365 (400-1)			520-1¼ 365 (400-1¼)
CIRCLING	560-1 405 (500-1)	620-1 465 (500-1)	620-1½ 465 (500-1½)	720-2 565 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	5914
CH 93709	304°	TDZE	155
W30A		Apt Elev	155

RNAV (GPS) RWY 30

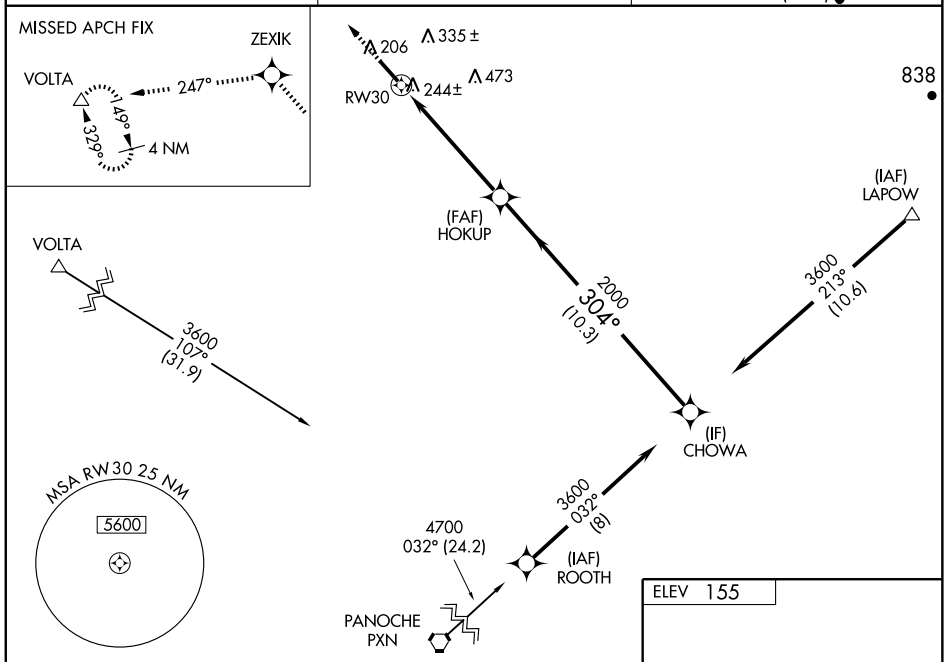
MERCED RGNL/MACREADY FIELD (MCE)

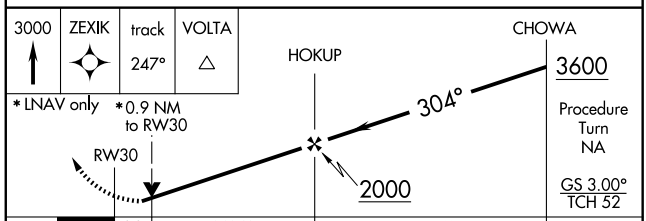
Circling NA NE of Rwy 12-30. Baro-VNAV NA when using Merced/Castle altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. VDP NA when using Castle altimeter setting. For inoperative MALSR, increase LNAV visibilities Cat A, B, C to 1 mile and Cat D to 1¼ mile. When local altimeter setting not received, use Castle altimeter setting and increase all DA/MDA 20 feet. Inoperative table does not apply.

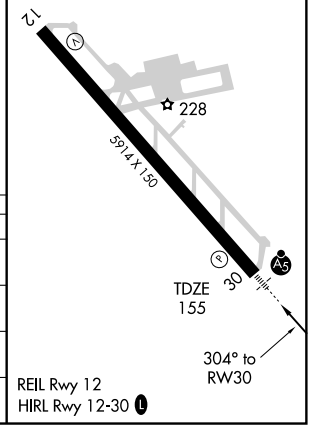
MALSR

MISSED APPROACH: Climb to 3000 direct ZEXIK and via track 247° to VOLTA and hold.

ASOS	NORCAL APP CON	UNICOM
132.175	120.95 269.4	122.7 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	449-¾ 294 (300-¾)			
LNAV/VNAV DA	514-¾ 359 (400-¾)			
LNAV MDA	500-¾ 345 (400-¾)			500-1 345 (400-1)
CIRCLING	560-1 405 (500-1)	620-1 465 (500-1)	620-1½ 465 (500-1½)	720-2 565 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME HYP	APP CRS	Rwy Idg	5914
114.2	289°	TDZE	155
Chan 89		Apt Elev	155

VOR RWY 30

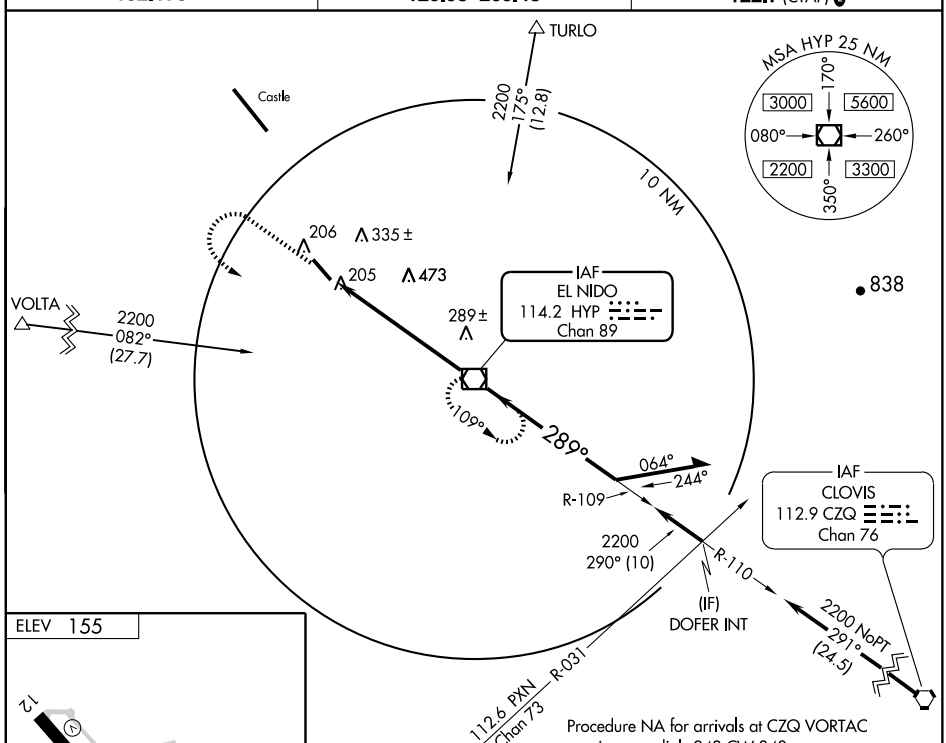
MERCED RGNL/MACREADY FIELD (MCE)

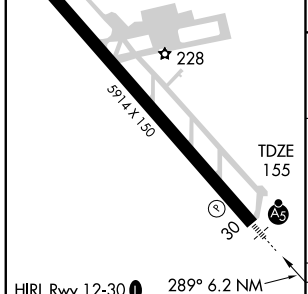
For inoperative MALSR, increase S-30 Cat A and B visibility to 1 mile, and Cat D to 1¼ mile. Circling NA NE of Rwy 12-30. Visibility reduction by helicopters NA. VDP NA when using Castle altimeter setting. When local altimeter setting not received, use Castle altimeter setting and increase all MDAs 20 feet.

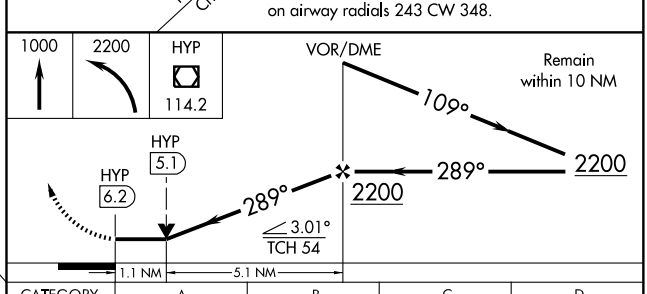
MALSR

MISSED APPROACH: Climb to 1000 then climbing left turn to 2200 direct HYP VOR/DME and hold.

ASOS	NORCAL APP CON	UNICOM
132.175	120.95 269.45	122.7 (CTAF) L







FAF to MAP 6.2 NM					
Knots	60	90	120	150	180
Min:Sec	6:12	4:08	3:06	2:29	2:04

CATEGORY	A	B	C	D
S-30	560-¾ 405 (500-¾)			560-1 405 (500-1)
CIRCLING	560-1 405 (500-1)	620-1 465 (500-1)	620-1½ 465 (500-1½)	720-2 565 (600-2)

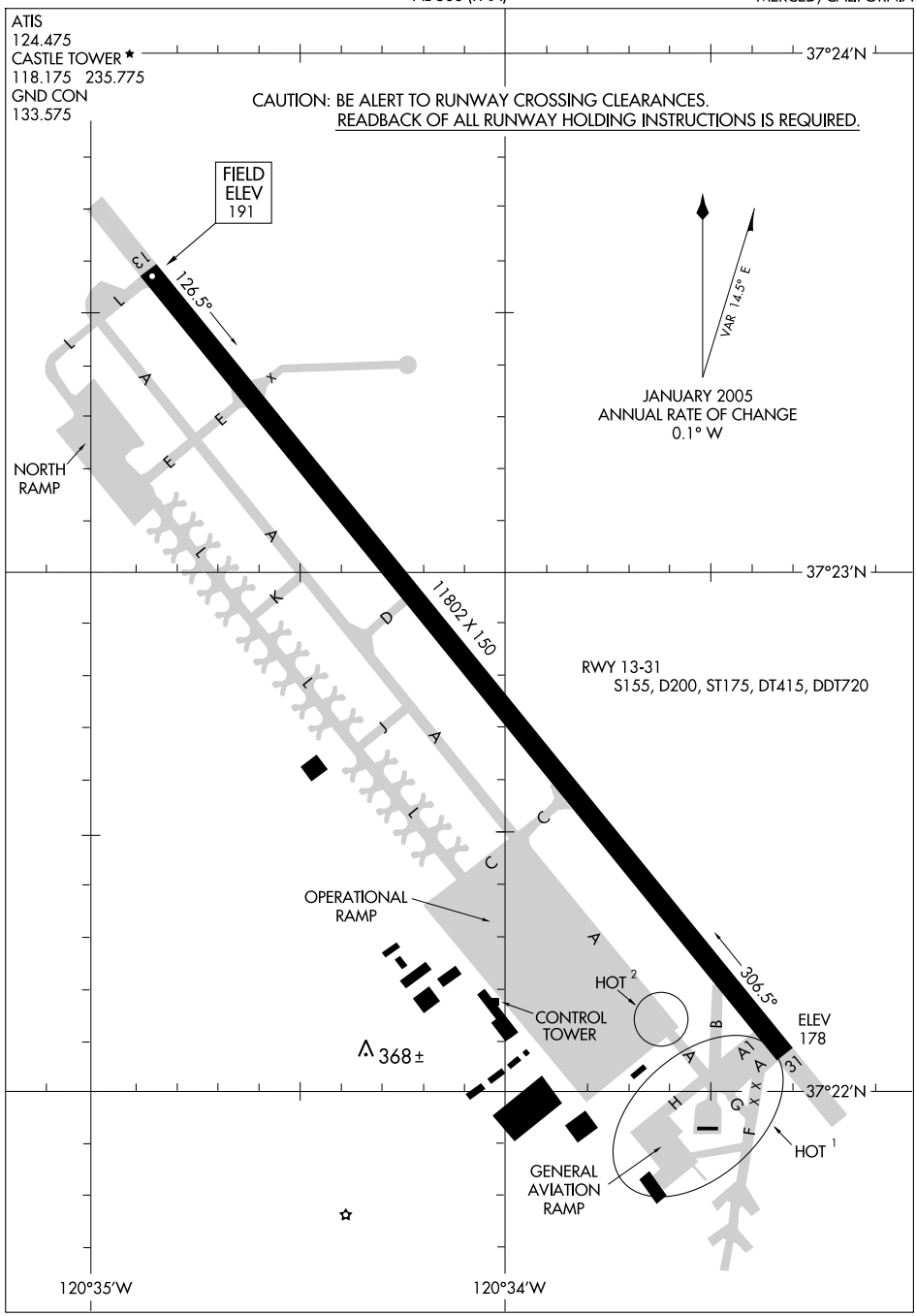
SW-2, 14 JAN 2010 to 11 FEB 2010

09295

AIRPORT DIAGRAM

AL-568 (FAA)

MERCED/CASTLE (MER)
MERCED, CALIFORNIA



SW-2, 14 JAN 2010 to 11 FEB 2010

LOC I-MER	APP CRS	Rwy Idg	11802
109.5	306°	TDZE	181
		Apt Elev	191

ILS or LOC/DME RWY 31

MERCED/ CASTLE (MER)

Circling NA SW of Rwy 13-31.
When local altimeter setting not received, use Merced Rgnl/Macready Field altimeter setting and increase DA/MDA 20 feet.
DME from HYP VOR/DME. Simultaneous reception of I-MER and HYP DME required.

ALSF-1

MISSED APPROACH: Climb to 800, then climbing right turn to 3000 direct HYP VOR/DME and hold.

ATIS	NORCAL APP CON	CASTLE TOWER ★	GND CON	UNICOM	
124.475	120.95 269.45	118.175 (CTAF) 235.775	133.575	122.95	123.00 L

ALT MISSED APCH FIX
MODESTO
MOD
114.6
Chan 93
285°
105°
R-105°

2289

794

10 NM

LOCALIZER 109.5
I-MER

274 ±

SARNE
HYP 6.7

335 ±

Merced Rgnl/Macready Field

1800

306°

6.7

MSA HYP 25 NM
5600

IF/IAF
EL NIDO
114.2 HYP
Chan 89

125°
1 min
305°
R-125
128°

IAF
CLOVIS
112.9 CZQ
Chan 76

3000 NoPT
291°
(34.5)

Procedure NA for arrivals on CZQ VORTAC airway radials 243 CW 348.

ELEV 191

11802 X 150

TDZE
181

31

368 ±

306° 4.9 NM
from FAF

HIRL Rwy 13-31 L

800	3000	HYP 114.2

One Minute Holding Pattern

VOR/DME

SARNE
HYP 6.7

HYP
11.6

1800

306°

125°
305°

3000

1800

GS 3.00°
TCH 55

4.9 NM 6.7 NM

CATEGORY	A	B	C	D
S-ILS 31	381-½ 200 (200-½)			
S-LOC 31	540-½ 359 (400-½)			540-¾ 359 (400-¾)
CIRCLING	640-1 449 (500-1)	660-1 469 (500-1)	660-1½ 469 (500-1½)	760-2 569 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	11802
CH 50211	126°	TDZE	191
W13A		Apt Elev	191

RNAV (GPS) RWY 13

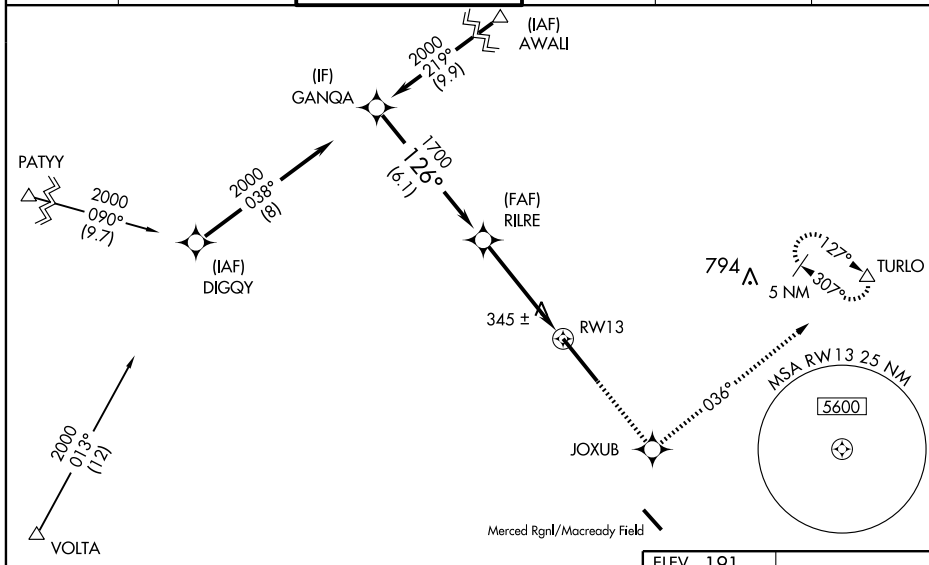
MERCED/ CASTLE (MER)

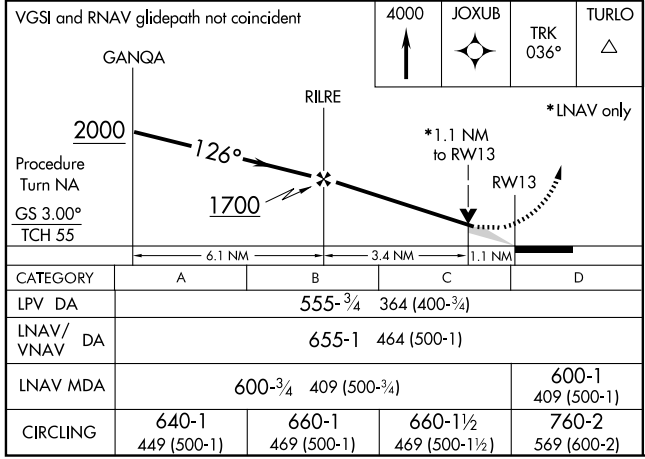
Circling NA SW of Rwy 13-31. Baro-VNAV NA when using Merced Rgnl/Macready Field altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. VDP NA when using Merced Rgnl/Macready Field altimeter setting. When local altimeter setting not received, use Merced Rgnl/Macready Field altimeter setting and increase all DA/MDA 20 feet and LNAV/VNAV visibility ¼ mile. For inoperative ALSF-1 increase visibility LPV all Cats and LNAV Cat D to 1¼, and LNAV Cats A and B to 1. For inoperative ALSF-1 when using Merced Rgnl/Macready Field altimeter setting, increase visibility LPV all Cats to 1½, and LNAV Cats A and B to 1.

ALSF-1

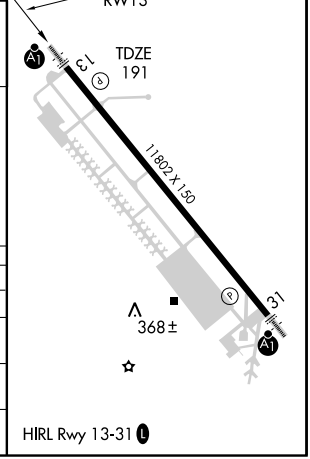
MISSED APPROACH: Climb to 4000 direct JOXUB and via track 036° to TURLO and hold, continue climb-in-hold to 4000.

ATIS	NORCAL APP CON	CASTLE TOWER *	GND CON	UNICOM	
124.475	120.95 269.45	118.175 (CTAF) 235.775	133.575	122.95	123.00 L





CATEGORY	A	B	C	D
LPV DA	555-¾ 364 (400-¾)			
LNAV/ VNAV DA	655-1 464 (500-1)			
LNAV MDA	600-¾ 409 (500-¾)			600-1 409 (500-1)
CIRCLING	640-1 449 (500-1)	660-1 469 (500-1)	660-1½ 469 (500-1½)	760-2 569 (600-2)



SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 87110 W31A	APP CRS 306°	Rwy Idg 11802 TDZE 181 Apt Elev 191

RNAV (GPS) RWY 31

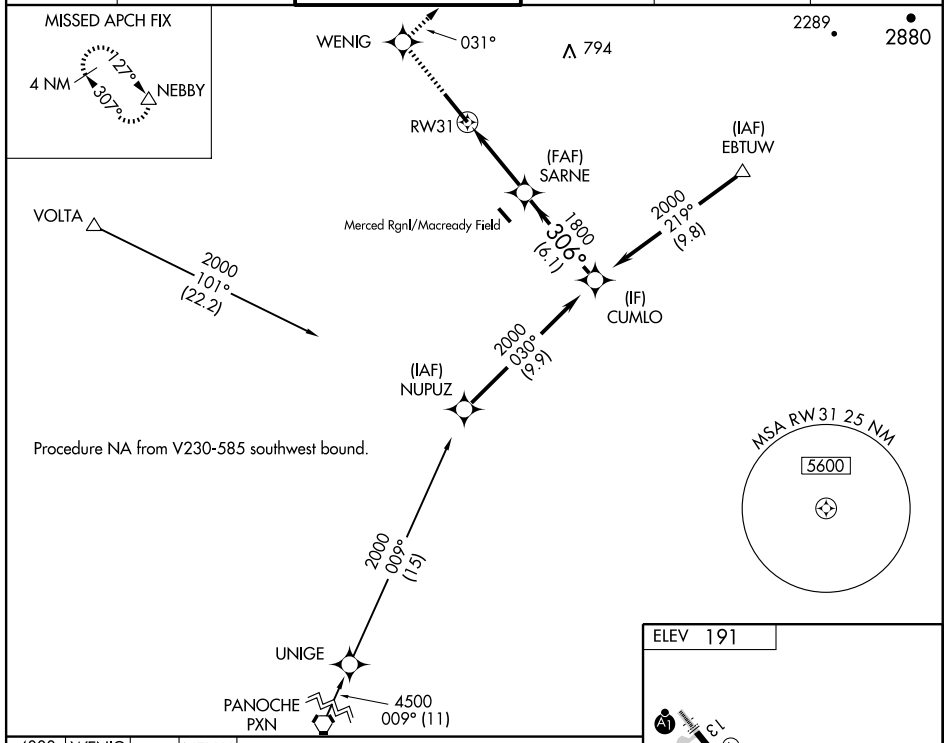
MERCED/ CASTLE (MER)

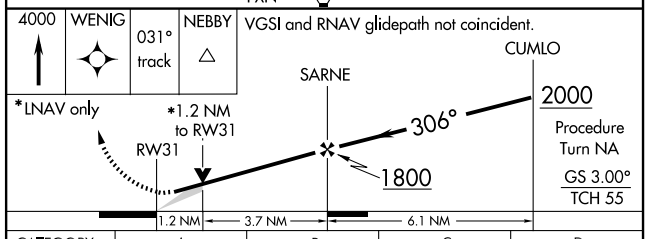
Circling NA SW of Rwy 13-31. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. VDP and Baro-VNAV NA when using Merced Rgnl/Macready Field altimeter setting. When local altimeter setting not received, use Merced Rgnl/Macready Field altimeter setting and increase all DA/MDA 20 feet.

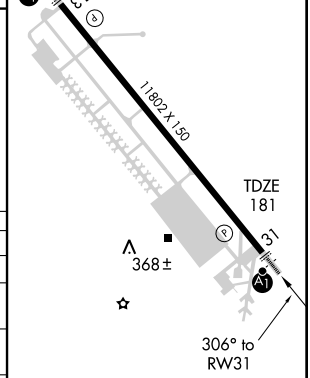
ALSF-1

MISSED APPROACH: Climb to 4000 direct WENIG and via 031° track to NEBBY and hold, continue climb-in-hold to 4000.

ATIS	NORCAL APP CON	CASTLE TOWER ★	GND CON	UNICOM	
124.475	120.95 269.45	118.175 (CTAF) 235.775	133.575	122.95	123.00 L







CATEGORY	A	B	C	D
LPV DA	381-½ 200 (200-½)			
LNAV/ VNAV DA	540-¾ 359 (400-¾)			
LNAV MDA	640-½ 459 (500-½)		640-¾ 459 (500-¾)	640-1 459 (500-1)
CIRCLING	640-1 449 (500-1)	660-1 469 (500-1)	660-1½ 469 (500-1½)	760-2 569 (600-2)

HIRL Rwy 13-31 L

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME HYP	APP CRS	Rwy Idg	11802
114.2	305°	TDZE	181
Chan 89		Apt Elev	191

VOR/DME RWY 31

MERCED / CASTLE (MER)

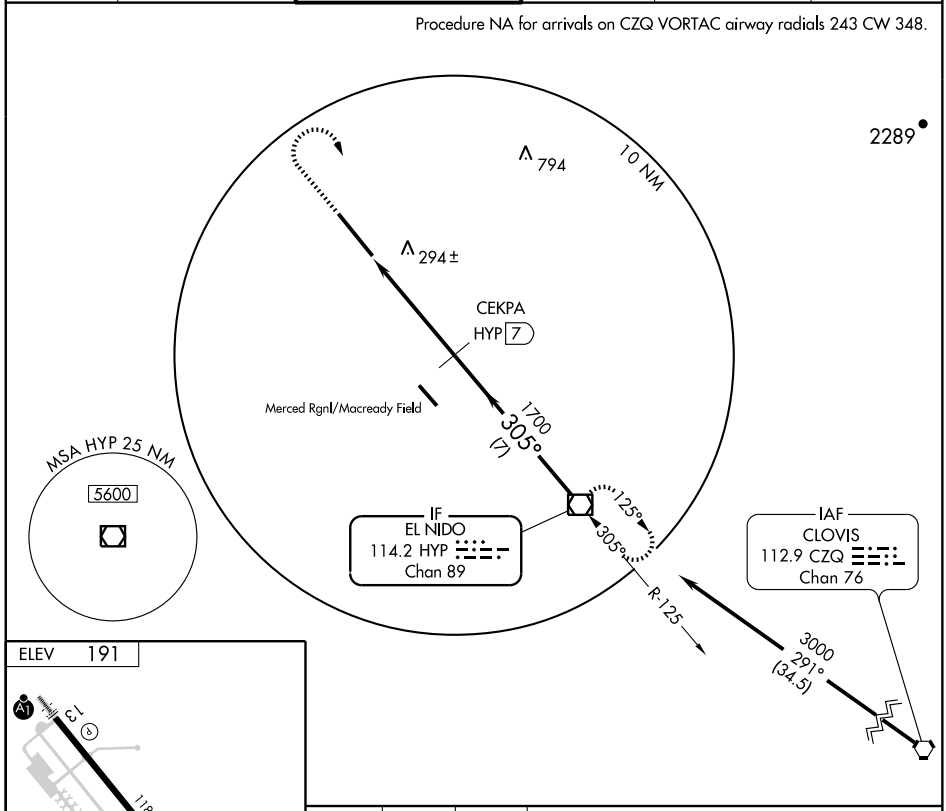
For inoperative ALSF-1, increase Cat D visibility to 1¼ mile. Circling not authorized SW of Rwy 13 and 31. When local altimeter setting not received, use Merced Rgnl/Macready Field altimeter setting and increase all MDA 20 feet. VDP NA when using Merced Rgnl/Macready Field altimeter setting.

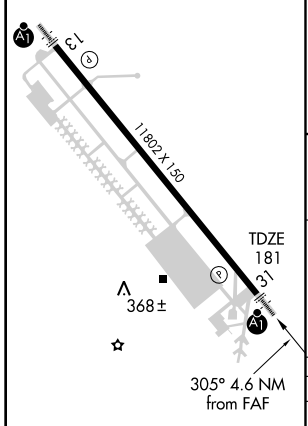
ALSF-1

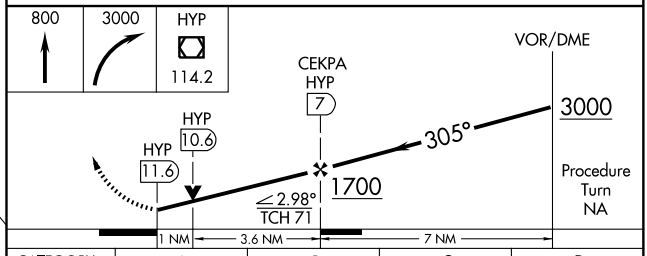
MISSED APPROACH: Climb to 800, then climbing right turn to 3000 direct HYP VOR/DME and hold.

ATIS	NORCAL APP CON	CASTLE TOWER ★	GND CON	UNICOM	
124.475	120.95 269.45	118.175 (CTAF) 235.775	133.575	122.95	123.00 L

Procedure NA for arrivals on CZQ VORTAC airway radials 243 CW 348.







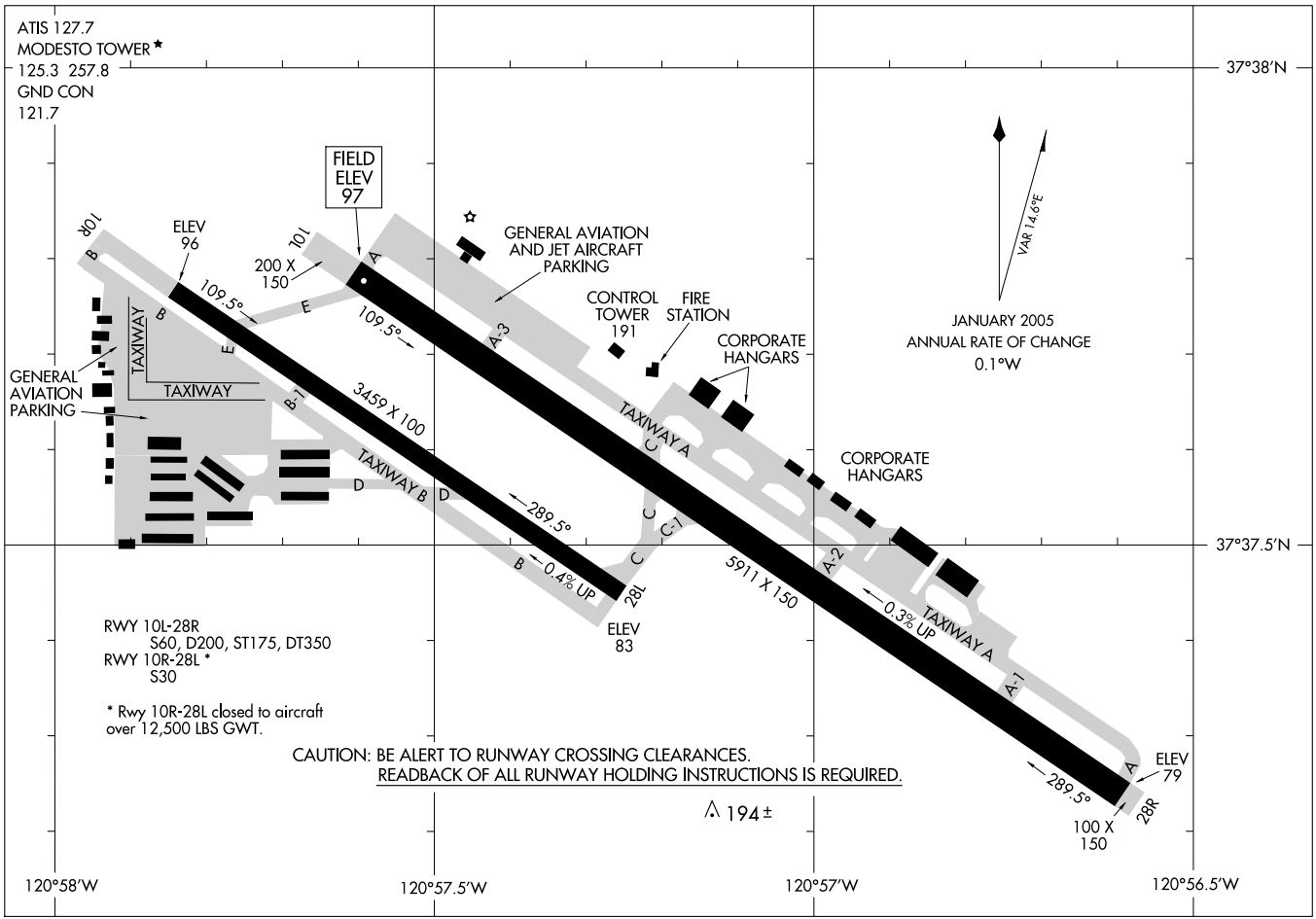
CATEGORY	A	B	C	D
S-31	560-½ 379 (400-½)			560-1 379 (400-1)
CIRCLING	640-1 449 (500-1)	660-1 469 (500-1)	660-1½ 469 (500-1½)	760-2 569 (600-2)

HIRL Rwy 13-31 L

SW-2, 14 JAN 2010 to 11 FEB 2010

AIRPORT DIAGRAM

MODESTO CITY-COUNTY-HARRY SHAM FIELD (MOD)
AL-643 (FAA)
MODESTO, CALIFORNIA



LOC I-MOD	APP CRS	Rwy Idg	5911
111.9	288°	TDZE	88
		Apt Elev	97

ILS or LOC/DME RWY 28R

MODESTO CITY-COUNTY-HARRY SHAM FIELD (MOD)

Autopilot coupled approach NA below 660. For inoperative MALSR, increase S-LOC Cat D visibility to 1 mile. When local altimeter setting not received, use Atwater altimeter setting and increase DA 68 feet and all MDAs 80 feet. Increase S-LOC Cat C visibility to ¾. For inoperative MALSR, when using Atwater altimeter setting; increase S-ILS 28R all visibilities ½ mile. DME from MOD VOR/DME. Simultaneous reception of I-MOD and MOD DME required.

MALSR

MISSED APPROACH: Climb to 1500 then climbing right turn to 2000 direct MOD VOR/DME and hold.

ATIS	NORCAL APP CON	MODESTO TOWER ★	GND CON	UNICOM
127.7	120.95 269.45	125.3 (CTAF) L 257.8	121.7	122.95

ALTERNATE MISSED APCH FIX

LINDEN LIN 114.8 Chan 95

R-180° 360° 180°

LOCALIZER 111.9 I-MOD

WRAPS

3000 194° (16.1)

15 NM

1480

447

2000 to ZELAT 107° (6)

299 499 214 228± 162± 458

WOWAR OM (IAF) ZELAT MOD 6

540

MODESTO 114.6 MOD Chan 93

105° 285°

2000 011° (9.3)

PATYY

MOD R-105

1 min 288° 108°

(IF) DLRAY INT MOD 17.6

1800 288° (11.6)

MOD LR-109

108°

R-306

MSA MOD 25 NM

170° 2900 3500 080° 260° 5100 2100 350°

CLOVIS 112.9 CZQ Chan 76

3000 NoPT 306° (18.9)

IAF EL NIDO 114.2 HYP Chan 89

PANOCHE 112.6 PXN Chan 73

4300 015° (35.3)

3000 291° (34.5)

DME or RADAR REQUIRED

ELEV 97

10R 10L 156 191 3459 X 100 5911 X 150 -0.4% UP -0.3% UP 28L 136± TDZE 88 28R

288° 5.2 NM from FAF

1500	2000	MOD 114.6

ZELAT MOD 6

One Minute Holding Pattern

1800

MOD 0.8

108° 288°

1800 1800

GS 3.00° TCH 53

5.2 NM

CATEGORY	A	B	C	D
S-ILS 28R	288-½ 200 (200-½)			
S-LOC 28R	420-½ 332 (400-½)			420-¾ 332 (400-¾)
CIRCLING	540-1 443 (500-1)	560-1 463 (500-1)	560-1½ 463 (500-1½)	660-2 563 (600-2)

REIL Rwy 10L L

MIRL Rwy 10R-28L

HIRL Rwy 10L-28R L

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 70609 W28A	APP CRS 288°	Rwy Idg 5911 TDZE 88 Apt Elev 97

RNAV (GPS) RWY 28R

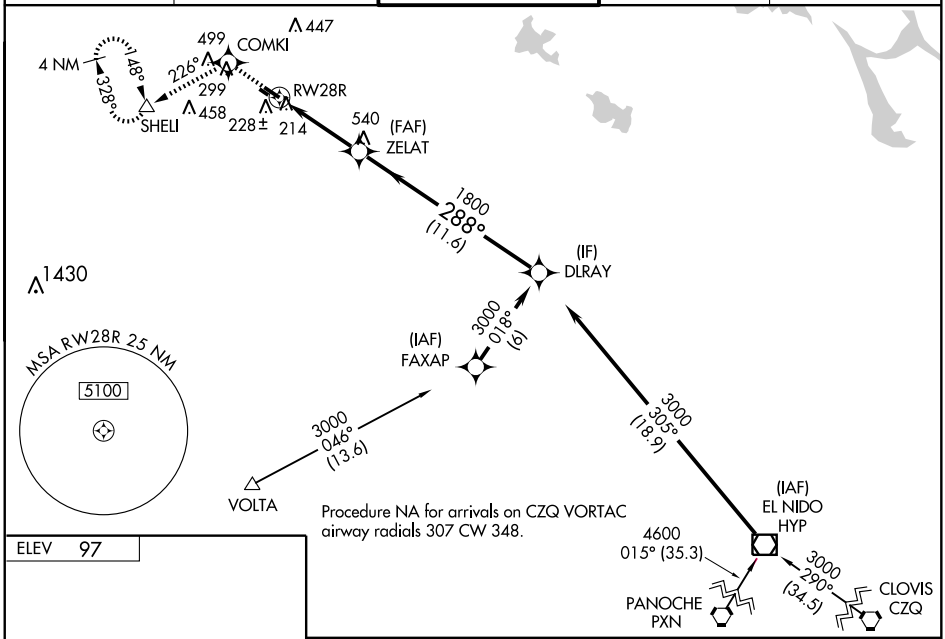
MODESTO CITY-COUNTY-HARRY SHAM FIELD (MOD)

For inoperative MALSR, increase LPV visibility to 1 mile all Cats and LNAV Cat D to 1¼ mile.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA.
When local altimeter setting not received, use Atwater/Castle altimeter setting and increase all DA/MDA 80 feet; increase LPV, LNAV/VNAV visibilities ¼ mile all Cats and LNAV Cat C visibility ¼ mile.
Baro-VNAV and VDP NA when using Atwater/Castle altimeter setting.
For inoperative MALSR, when using Atwater/Castle altimeter setting, increase LPV visibility to 1¼ mile all Cats.

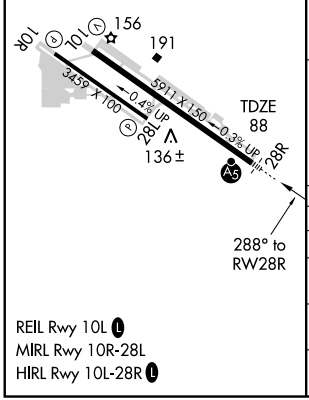
MALSR

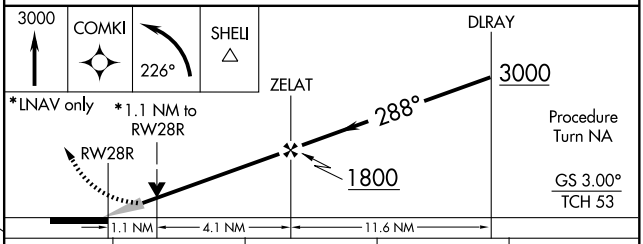
MISSED APPROACH: Climb to 3000 direct COMKI and left turn via 226° track to SHELI and hold, continue climb-in-hold to 3000.

ATIS	NORCAL APP CON	MODESTO TOWER★	GND CON	UNICOM
127.7	120.95 269.45	125.3 (CTAF) L 257.8	121.7	122.95



ELEV 97





CATEGORY	A	B	C	D
LPV DA	385-½ 297 (300-½)			
LNAV/VNAV DA	495-1 407 (400-1)			
LNAV MDA	480-½ 392 (400-½)			480-1 392 (400-1)
CIRCLING	540-1 443 (500-1)	560-1 463 (500-1)	560-1½ 463 (500-1½)	660-2 563 (600-2)

REIL Rwy 10L L
MIRL Rwy 10R-28L
HIRL Rwy 10L-28R L

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME MOD	APP CRS	Rwy Idg	5911
114.6	287°	TDZE	88
Chan 93		Apt Elev	97

VOR/DME RWY 28R

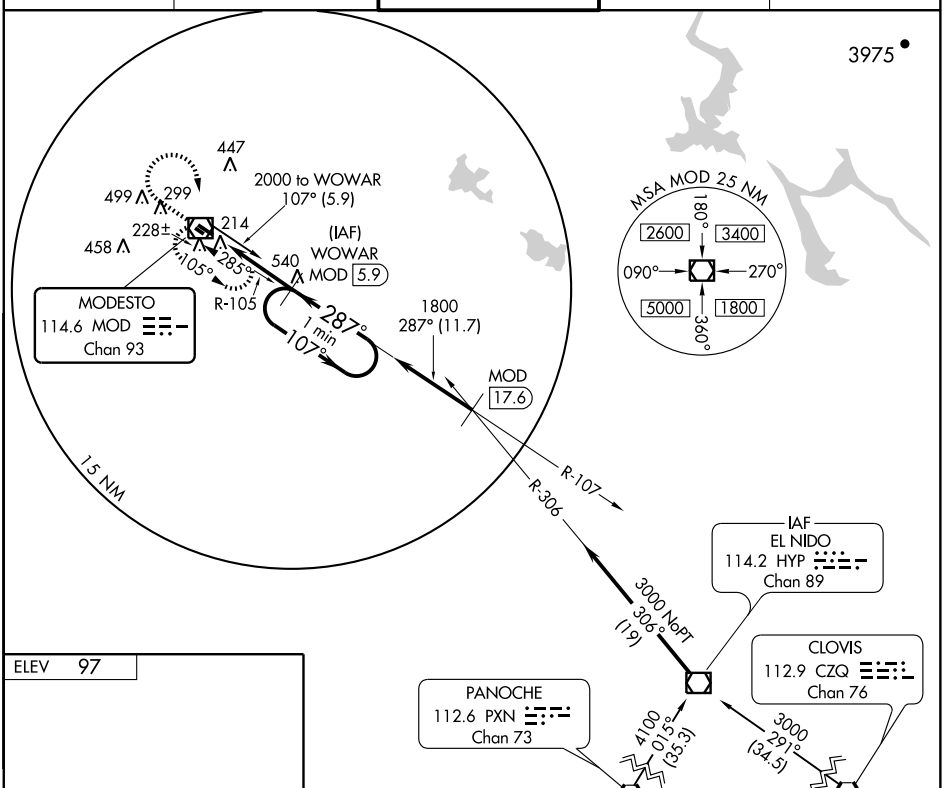
MODESTO CITY-COUNTY-HARRY SHAM FIELD (MOD)

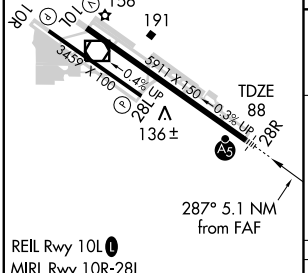
For inoperative MALSR increase S-28R Cat. D visibility to 1¼.

MALSR

MISSED APPROACH: Climb to 900 then climbing right turn to 2000 direct MOD VOR/DME and hold.

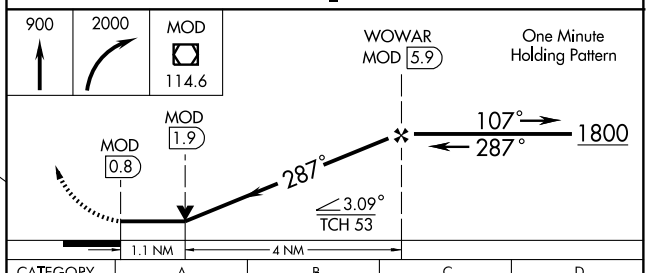
ATIS	NORCAL APP CON	MODESTO TOWER ★	GND CON	UNICOM
127.7	120.95 269.45	125.3 (CTAF) L 257.8	121.7	122.95





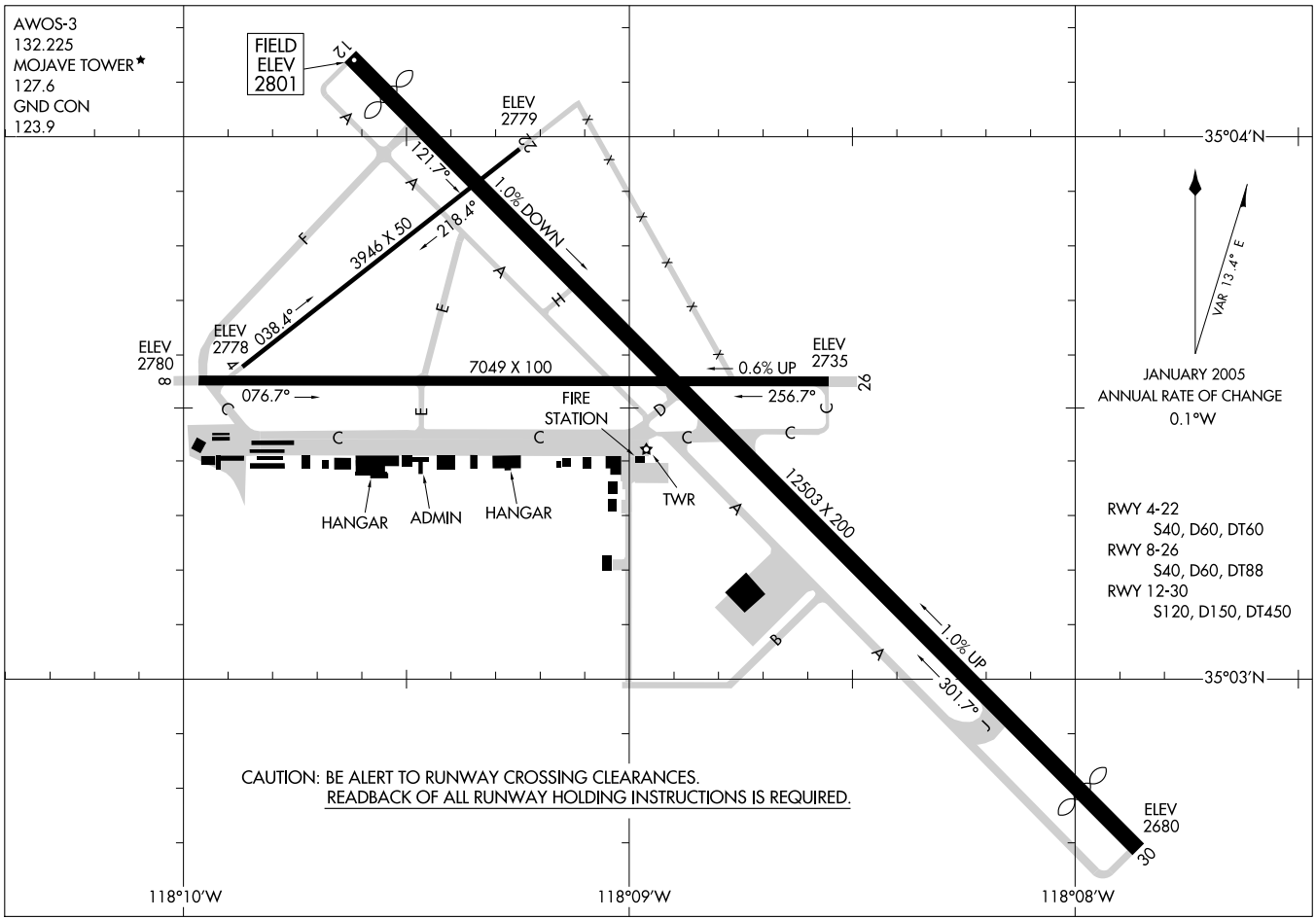
REIL Rwy 10L L
MIRL Rwy 10R-28L
HIRL Rwy 10L-28R L

Knots	60	90	120	150	180
Min:Sec					



CATEGORY	A	B	C	D
S-28R	480-½ 392 (400-½)			480-1 392 (400-1)
CIRCLING	540-1 443 (500-1)	560-1 463 (500-1)	560-1½ 463 (500-1½)	660-2 563 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010



AIRPORT DIAGRAM

AL-9353 (FAA)

MOJAVE (MHV)
MOJAVE, CALIFORNIA

APP CRS	Rwy Idg	3946
029°	TDZE	2778
	Apt Elev	2791

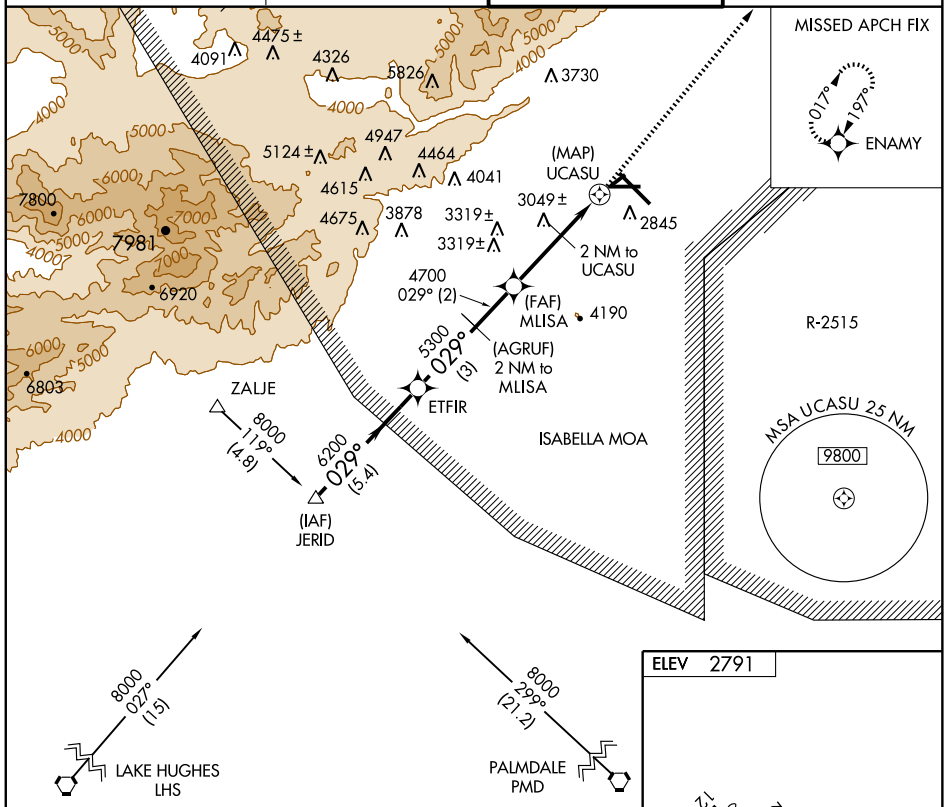
GPS RWY 4
MOJAVE (MHV)

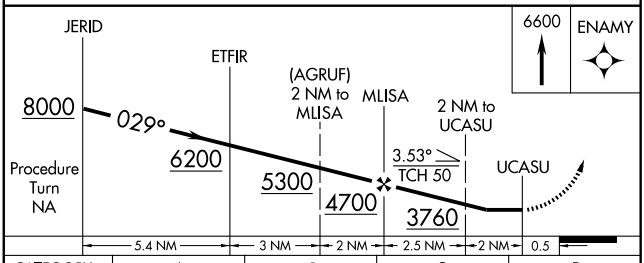
Use Edwards AFB altimeter setting.
Circling SE of runway 4-22 not authorized.
Procedure NA at night.

NA

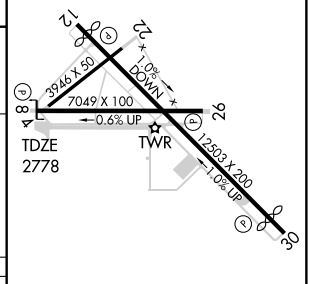
MISSED APPROACH: Climb to 6600 direct ENAMY WP and hold.

AWOS-3	JOSHUA APP CON	MOJAVE TOWER★	GND CON
132.225	133.65 348.7	127.6 (CTAF) L	123.9





CATEGORY	A	B	C	D
S-4	3420-1	642 (700-1)	3420-1¾ 642 (700-1¾)	NA
CIRCLING	3520-1	729 (800-1)	3520-2 729 (800-2)	NA



REIL Rwys 12 and 30 L
MIRL Rwy 8-26 L
HIRL Rwy 12-30 L

SW-3, 14 JAN 2010 to 11 FEB 2010

MOJAVE, CALIFORNIA AL-9353 (FAA)

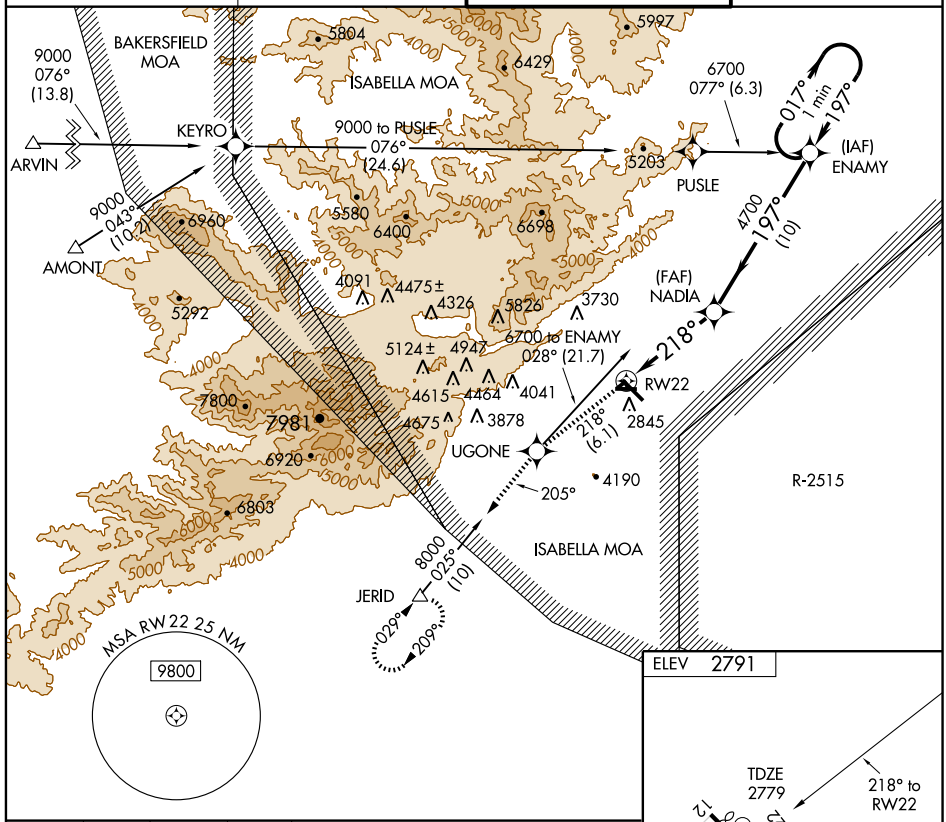
APP CRS	Rwy Idg	3946
218°	TDZE	2779
	Apt Elev	2791

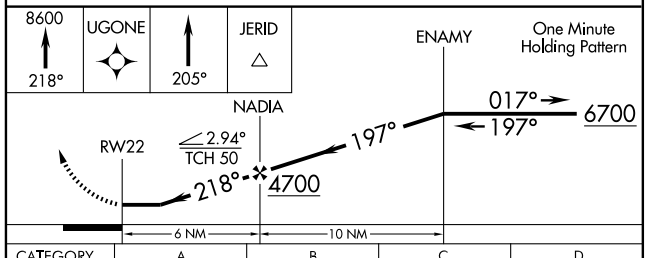
GPS RWY 22
MOJAVE (MHV)

Use Edwards AFB altimeter setting.
Circling SE of runway 4-22 not authorized.
Procedure NA at night.

MISSED APPROACH: Climb to 8600 via course 218° to UGONE WP then via course 205° to JERID WP and hold.

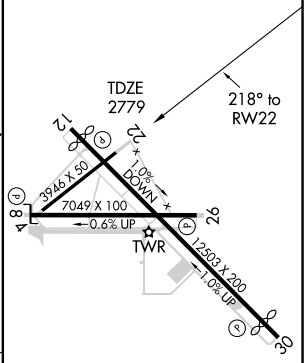
AWOS-3	JOSHUA APP CON	MOJAVE TOWER ★	GND CON
132.225	133.65 348.7	127.6 (CTAF) L	123.9





CATEGORY	A	B	C	D
S-22	3820-1¼ 1041 (1100-1¼)	3820-1½ 1041 (1100-1½)	3820-3 1041 (1100-3)	NA
CIRCLING	3820-1¼ 1029 (1100-1¼)	3820-1½ 1029 (1100-1½)	3820-3 1029 (1100-3)	NA

ELEV 2791

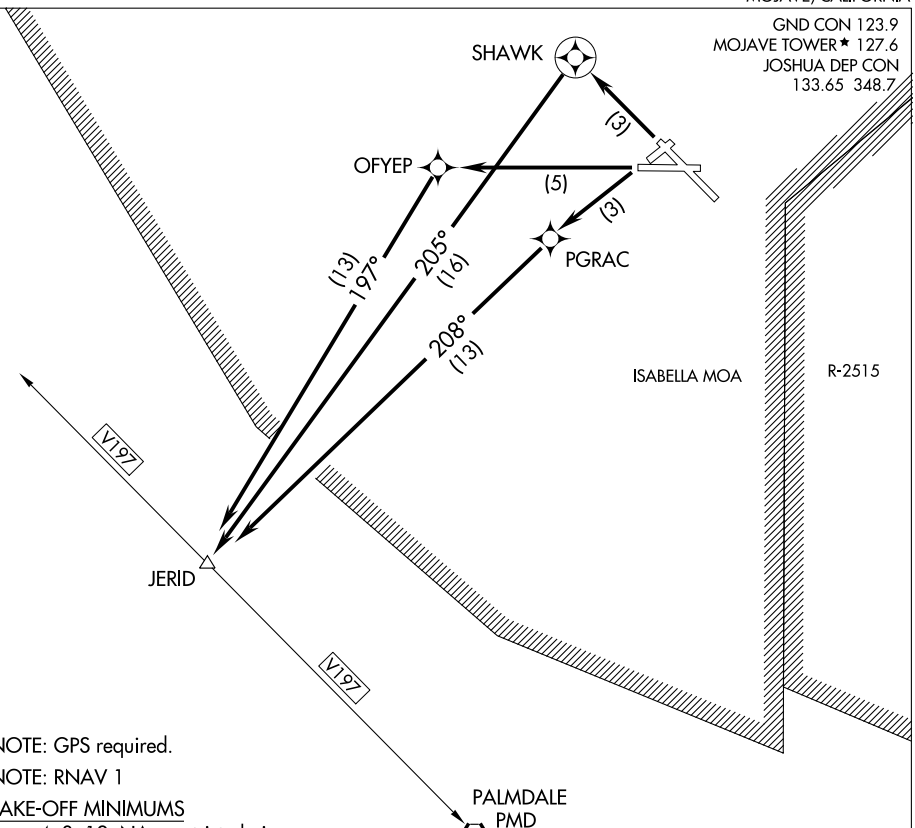


REIL Rwys 12 and 30 L
MIRL Rwy 8-26 L
HIRL Rwy 12-30 L

SW-3, 14 JAN 2010 to 11 FEB 2010

JERID THREE DEPARTURE (RNAV)

MOJAVE (MHV)
MOJAVE, CALIFORNIA



NOTE: GPS required.

NOTE: RNAV 1

TAKE-OFF MINIMUMS

Rwys 4, 8, 12: NA - restricted airspace.
Rwys 22, 26: Standard.
Rwy 30: Standard with a minimum climb of 480′ per NM to 5300.

NOTE: Aircraft departing Rwys 22, 26, 30 northwest bound on V197:
Standard with a minimum climb of 480′ per NM to 7600.

TAKE-OFF OBSTACLE NOTES

Rwy 30: Vehicle on road 3181′ from DER, 22′ right of centerline 17′ AGL/2896′ MSL.
Train 1441′ from DER, 351′ right of centerline, 23′ AGL/2882′ MSL.
Rwy 22: Tower 1519′ from DER, 150′ left of centerline, 80′ AGL/2849′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 22: Climb direct PGRAC, then via 208° track to JERID, thence....

TAKE-OFF RUNWAY 26: Climb direct OFYEP, then via 197° track to JERID, thence....

TAKE-OFF RUNWAY 30: Climb direct SHAWK, then climbing left turn via 205° track to JERID, thence....

....maintain 10000, expect filed altitude 10 minutes after departure.

NDB MOG 404	APP CRS 352°	Rwy Idg N/A TDZE N/A Apt Elev 2648

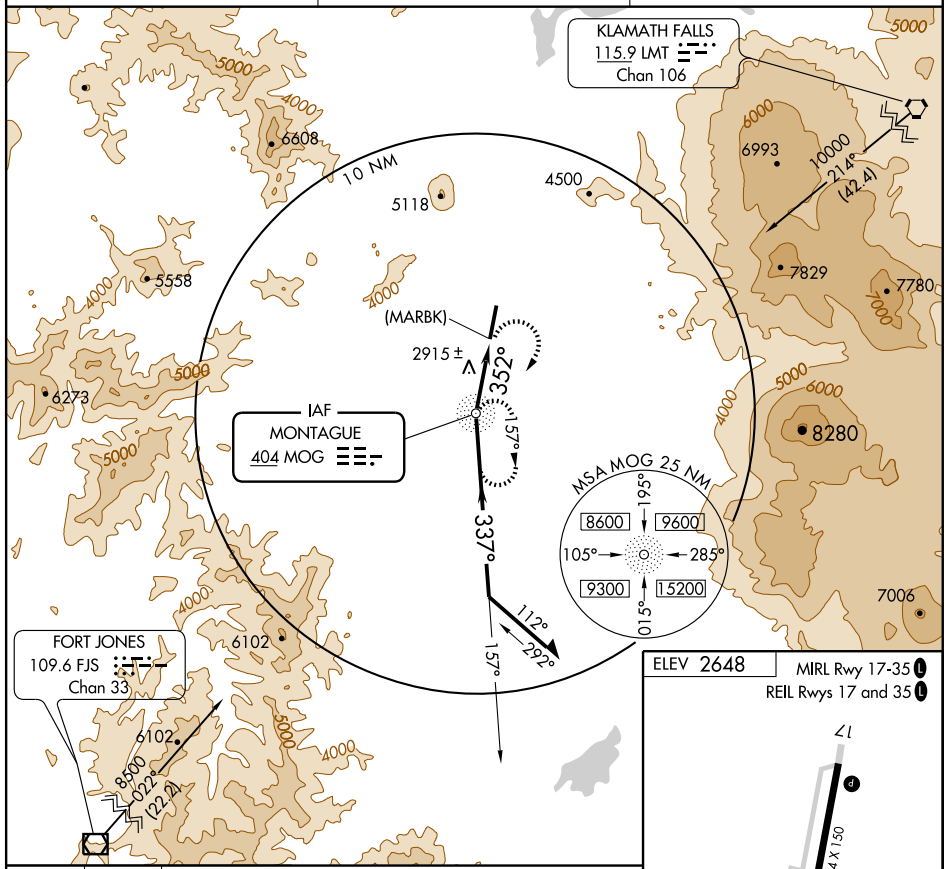
NDB or GPS-A

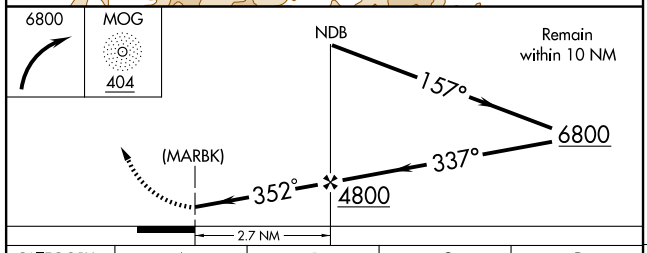
MONTAGUE/ SISKIYOU COUNTY (SIY)

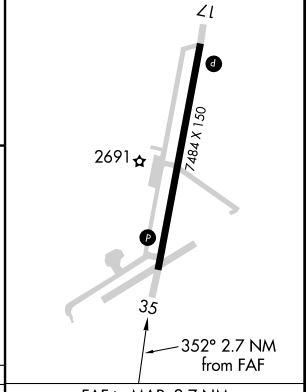
T NA Use Siskiyou County altimeter setting; when not available, use Montague-Yreka Rohrer Field altimeter setting; when neither received, procedure not authorized.

MISSED APPROACH: Climbing right turn to 6800 direct MOG NDB and hold.

ASOS	SEATTLE CENTER	UNICOM
121.125	124.85 306.3	123.0 (CTAF) L



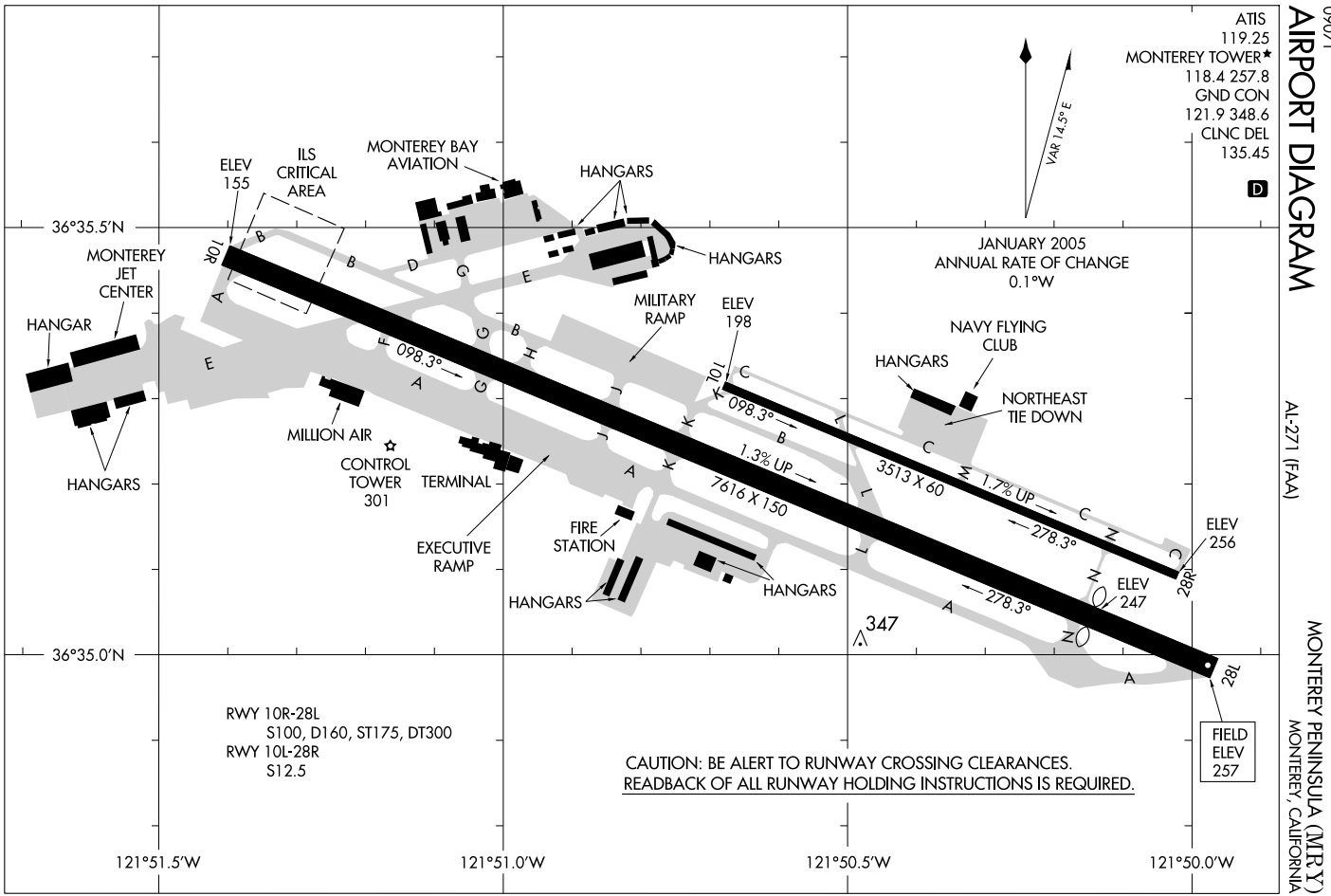




CATEGORY	A	B	C	D
CIRCLING	3760-1¼ 1112 (1200-1¼)	3760-1½ 1112 (1200-1½)	3760-3 1112 (1200-3)	

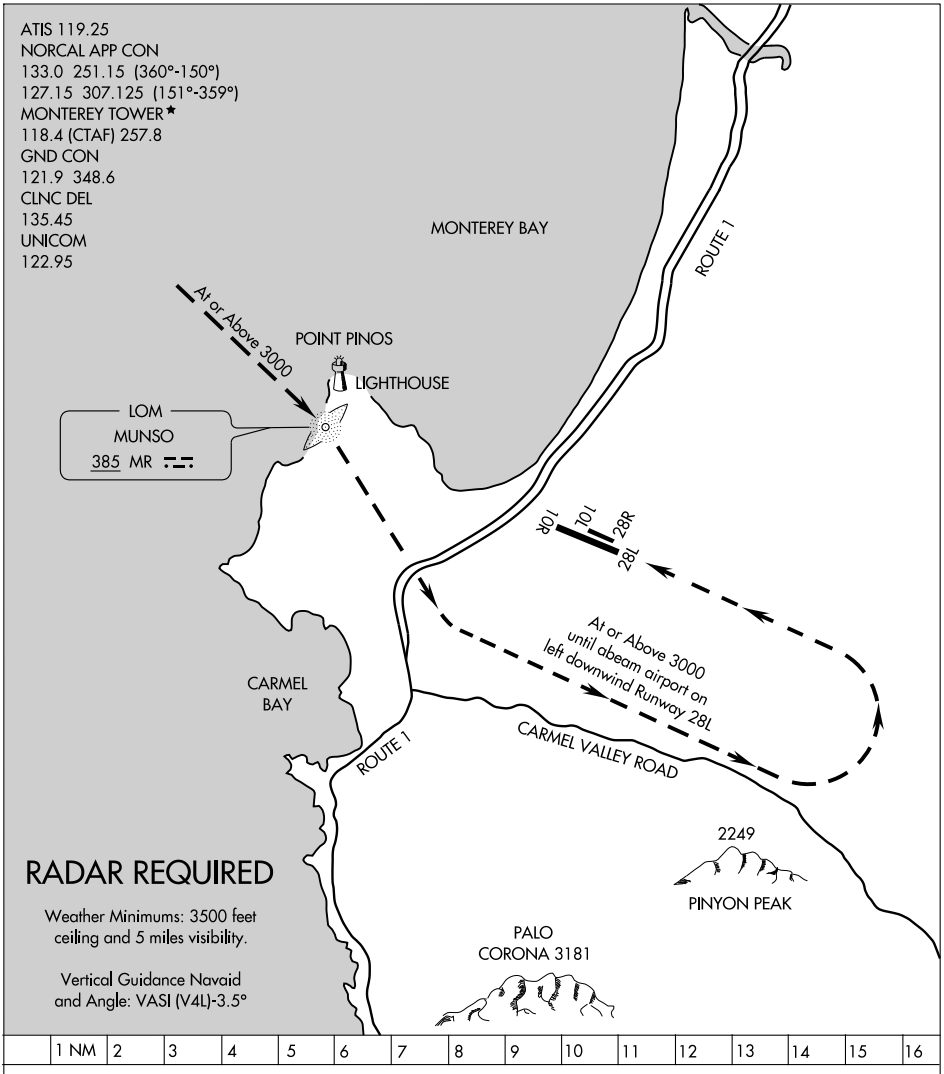
FAF to MAP 2.7 NM					
Knots	60	90	120	150	180
Min:Sec	2:42	1:48	1:21	1:05	0:54

SW-2, 14 JAN 2010 to 11 FEB 2010


AIRPORT DIAGRAM
MONTEREY PENINSULA (MRY)
MONTEREY, CALIFORNIA
AL-271 (FAA)
ATIS
119.25
MONTEREY TOWER★
118.4 257.8
GND CON
121.9 348.6
CLNC DEL
135.45
D
VAR 14.5° E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°W
ELEV
155
ILS
CRITICAL
AREA
MONTEREY BAY
AVIATION
HANGARS
HANGARS
MONTEREY
JET
CENTER
HANGAR
HANGARS
MILLION AIR
CONTROL
TOWER
301
TERMINAL
EXECUTIVE
RAMP
MILITARY
RAMP
ELEV
198
FIRE
STATION
HANGARS
HANGARS
NAVY FLYING
CLUB
HANGARS
NORTHEAST
TIE DOWN
10R
28L
098.3°
1.3% UP
7616 X 150
10L
28R
098.3°
1.7% UP
3513 X 60
278.3°
278.3°
ELEV
256
ELEV
247
347
36°35.5'N
36°35.0'N
121°51.5'W
121°51.0'W
121°50.5'W
121°50.0'W
RWY 10R-28L
S100, D160, ST175, DT300
RWY 10L-28R
S12.5
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
FIELD
ELEV
257

CARMEL VISUAL RWY 28L

MONTEREY PENINSULA (MRY)
MONTEREY, CALIFORNIA



CARMEL VISUAL APPROACH RWY 28L
PROCEDURE NOT AUTHORIZED AT NIGHT

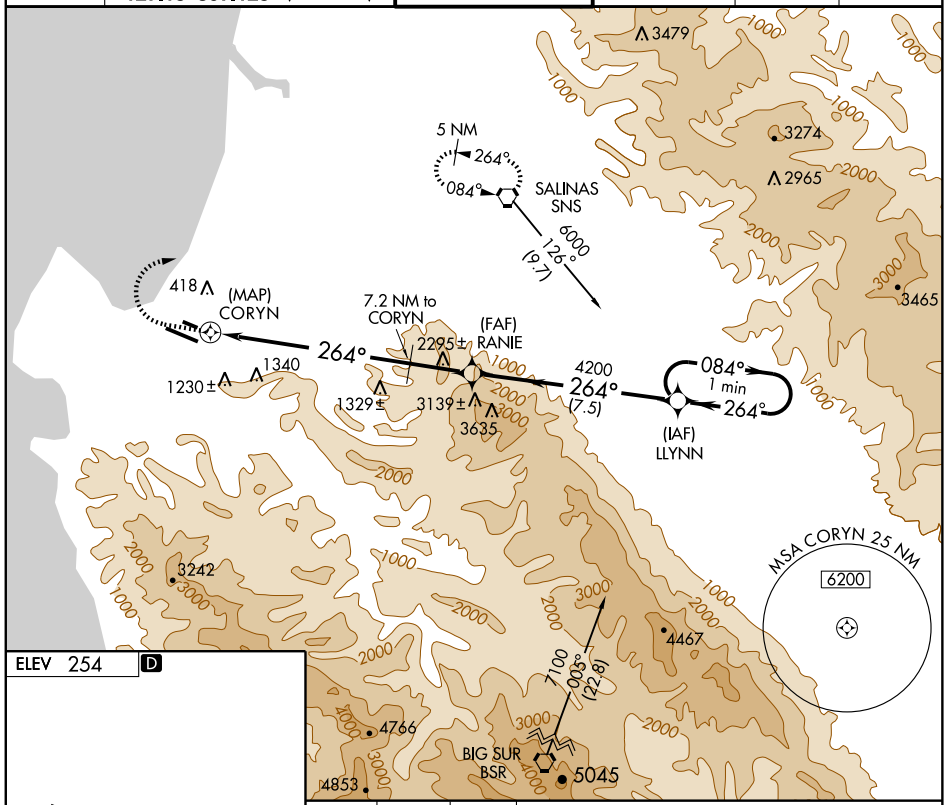
APP CRS	Rwy Idg	3513
264°	TDZE	253
	Apt Elev	254

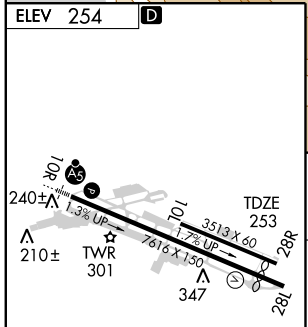
GPS RWY 28R
MONTEREY PENINSULA (MRY)

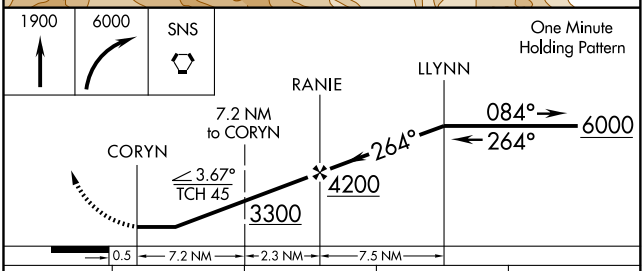
T NA — Circling not authorized south of Rwy 10R-28L. When tower closed, straight-in minimums not authorized.

MISSED APPROACH: Climb to 1900, then climbing right turn to 6000 direct SNS VORTAC and hold.

ATIS	NORCAL APP CON	MONTEREY TOWER ★	GND CON	CLNC DEL	UNICOM
119.25	133.0 251.15 (360°-150°) 127.15 307.125 (151°-359°)	118.4 (CTAF) L 257.8	121.9 348.6	135.45	122.95







CATEGORY	A	B	C	D
S-28R	1560-1¼ 1307 (1400-1¼)	1560-1½ 1307 (1400-1½)	NA	
CIRCLING	1560-1¼ 1306 (1400-1¼)	1560-1½ 1306 (1400-1½)	NA	

MIRL Rwy 10L-28R
HIRL Rwy 10R-28L L
REIL Rwy 28L L

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-MRY	APP CRS	Rwy Idg	7616
110.7	098°	TDZE	193
Chan 44		Apt Elev	257

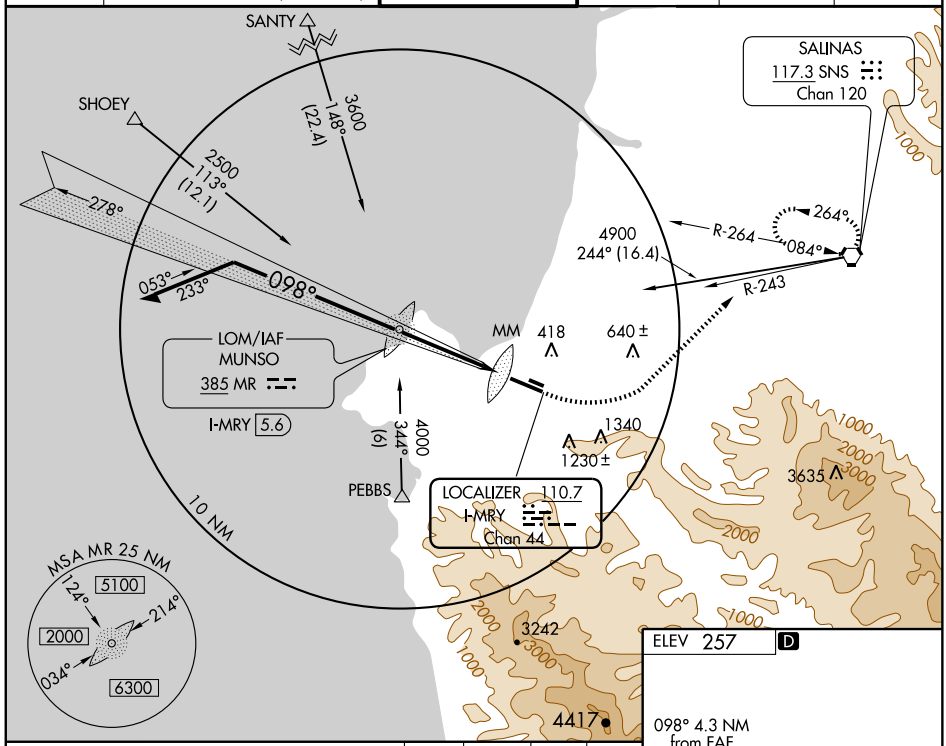
ILS or LOC RWY 10R
MONTEREY PENINSULA (MRY)

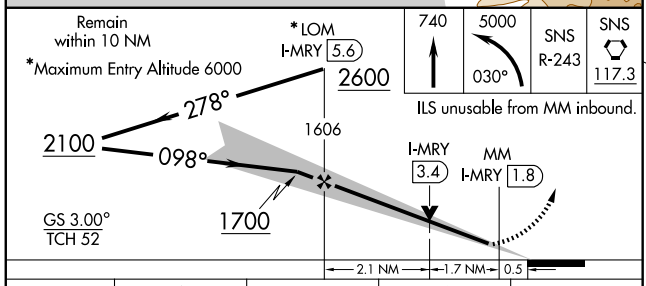
Circling not authorized south of Runway 10R-28L.
ILS unusable from MM inbound.
Auto pilot coupled approach not authorized.
For inoperative MALSR, increase S-ILS 10R to RVR 5000.

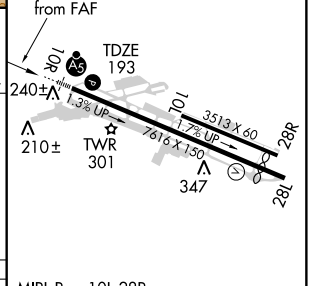
MALSR

MISSED APPROACH: Climb to 740, then climbing left turn to 5000 via heading 030° and SNS R-243 to SNS VORTAC and hold.

ATIS	NORCAL APP CON	MONTEREY TOWER ★	GND CON	CLNC DEL	UNICOM
119.25	133.0 251.15 (360°-150°) 127.15 307.125 (151°-359°)	118.4 (CTAF) L 257.8	121.9 348.6	135.45	122.95







CATEGORY	A	B	C	D
S-ILS 10R	480/24	287 (300-½)		
S-LOC 10R	900/24 707 (700-½)		900-1½ 707 (700-1½)	900-1¾ 707 (700-1¾)
CIRCLING	900-1 643 (700-1)		900-2 643 (700-2)	1080-2¾ 823 (900-2¾)

MIRL Rwy 10L-28R
HIRL Rwy 10R-28L L
REIL Rwy 28L L

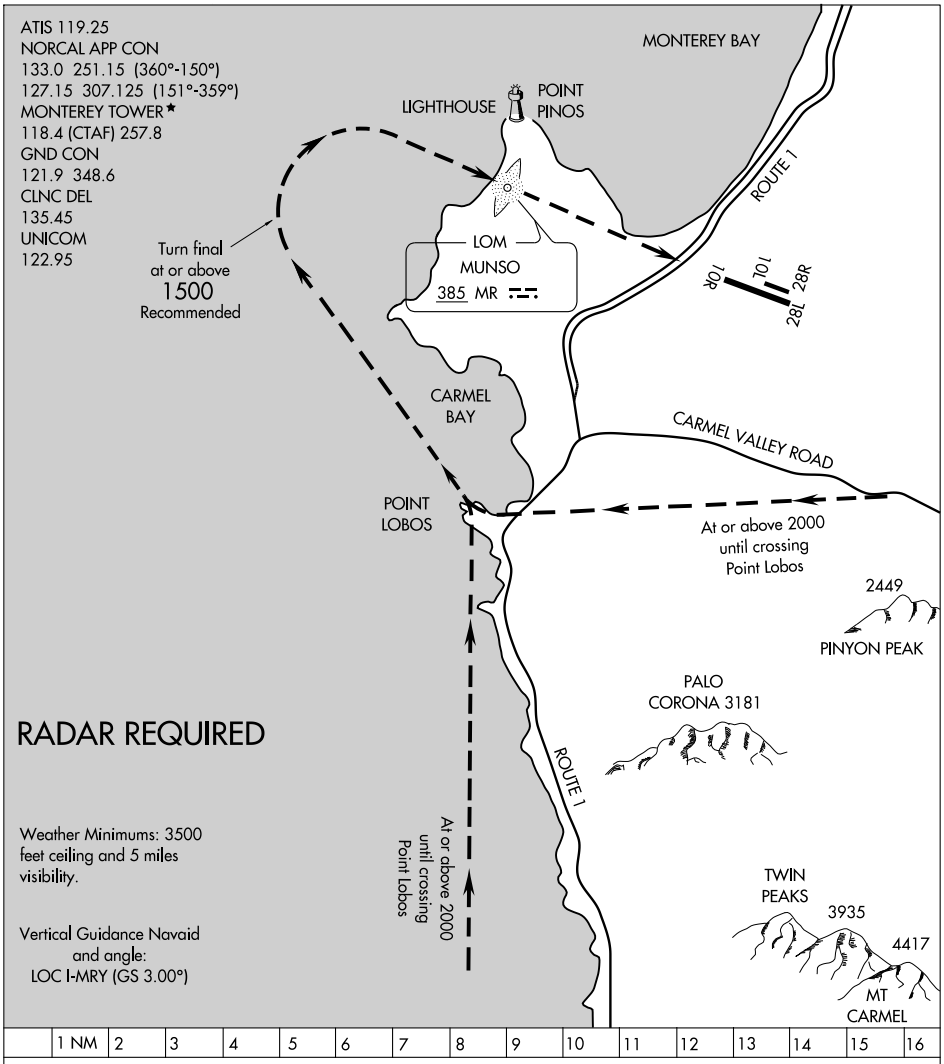
FAF to MAP 3.8 NM

Knots	60	90	120	150	180
Min:Sec	3:48	2:32	1:54	1:31	1:16

SW-2, 14 JAN 2010 to 11 FEB 2010

LOBOS VISUAL RWY 10R

MONTEREY PENINSULA (MRY)
MONTEREY, CALIFORNIA



LOBOS VISUAL APPROACH RWY 10R
PROCEDURE NOT AUTHORIZED AT NIGHT

MONTEREY, CALIFORNIA

AL-271 (FAA)

LOC/DME I-MTB	APP CRS	Rwy Idg	6616
110.7	278°	TDZE	245
Chan 44		Apt Elev	254

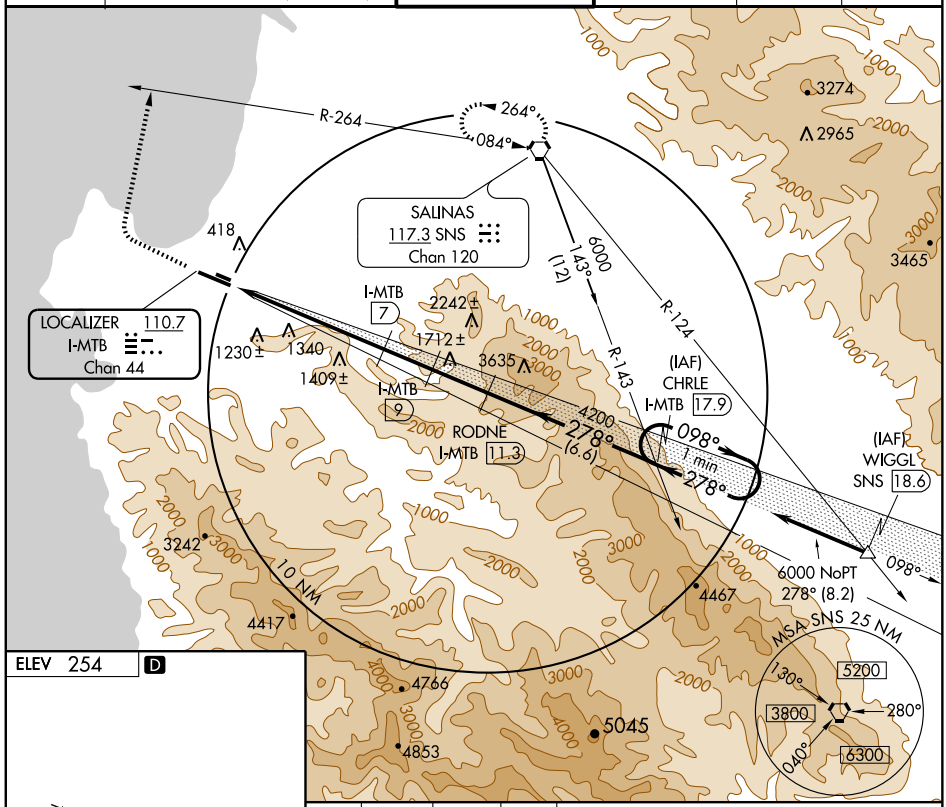
LOC/DME RWY 28L

MONTEREY PENINSULA (MRY)

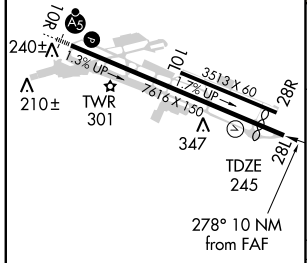
Circling not authorized south of Rwy 28L.
Procedure NA when control tower closed.

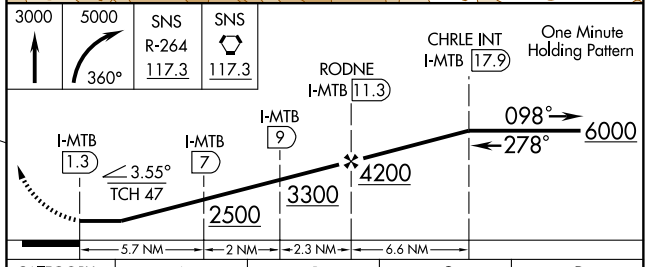
MISSED APPROACH: Climb straight ahead to 3000 then climbing right turn to 5000 via heading 360° and SNS R-264 to SNS VORTAC and hold.

ATIS	NORCAL APP CON	MONTEREY TOWER ★	GND CON	CLNC DEL	UNICOM
119.25	133.0 251.15 (360°-150°) 127.15 307.125 (151°-359°)	118.4 (CTAF) Ⓛ 257.8	121.9 348.6	135.45	122.95



ELEV 254 D





CATEGORY	A	B	C	D
S-28L	1660-1¼ 1415 (1500-1¼)	1660-1½ 1415 (1500-1½)	1660-3	1415 (1500-3)
CIRCLING	1660-1¼ 1406 (1500-1¼)	1660-1½ 1406 (1500-1½)	1660-3	1406 (1500-3)

MIRL Rwy 10L-28R
HIRL Rwy 10R-28L Ⓛ
REIL Rwy 28L Ⓛ

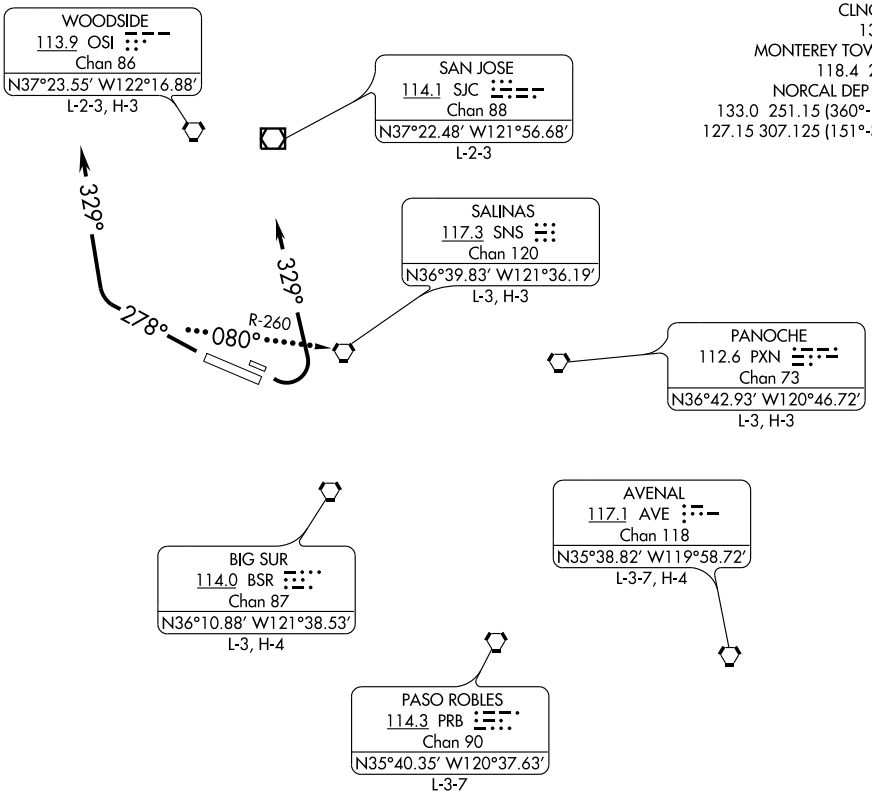
SW-2, 14 JAN 2010 to 11 FEB 2010

MONTEREY NINE DEPARTURE

SL-271 (FAA)

MONTEREY PENINSULA (MRY)
MONTEREY, CALIFORNIA

ATIS
119.25
GND CON
121.9 348.6
CLNC DEL
135.45
MONTEREY TOWER★
118.4 257.8
NORCAL DEP CON
133.0 251.15 (360°-150°)
127.15 307.125 (151°-359°)



TAKE-OFF MINIMUMS

Rwy 10R: Standard with a minimum climb of 451′ per NM to 1900.
Rwy 10L: Standard with a minimum climb of 428′ per NM to 1900.
Rwy 28L: Standard with a minimum climb of 310′ per NM to 1100.
Rwy 28R: Standard with a minimum climb of 240′ per NM to 1100.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

SW-2, 14 JAN 2010 to 11 FEB 2010

MONTEREY NINE DEPARTURE

SL-271 (FAA)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 10L/R: Climbing left turn heading 329°. Thence. . . .

TAKE-OFF RUNWAY 28L/R: Climb heading 278° until leaving 1100′ or as directed by Monterey Tower. Then climbing right turn heading 329°. Thence. . . .

. . . .all aircraft expect vectors to assigned route/fix. Altitude will be assigned by ATC. Expect clearance to filed altitude ten minutes after departure.

LOST COMMUNICATIONS: If no transmissions received for one minute after departure, proceed via SNS R-260 to SNS VORTAC, then via assigned fix/route. Climb to 6000′ or assigned altitude, whichever is higher.

TAKE-OFF OBSTACLE NOTES

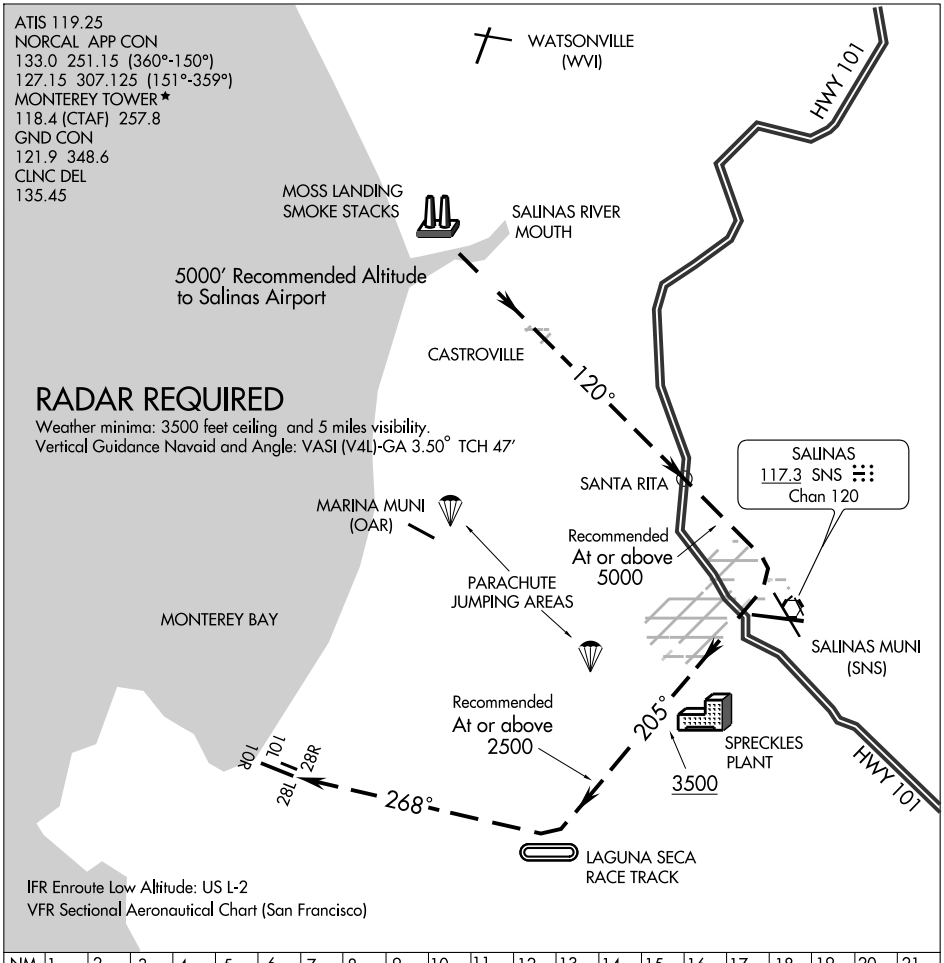
Rwy 10R: OL on DME 64′ from DER, 284′ left of centerline, 12′ AGL/272′ MSL.
Tree 1.7 NM from DER, 2318′ right of centerline, up to 100′ AGL/859′ MSL.
Rwy 10L: OL on DME 555′ from DER, 217′ right of centerline, 12′ AGL/272′ MSL.
Tree 1.8 NM from DER, 2817′ right of centerline, up to 100′ AGL/859′ MSL.
Rwy 28R: Airplane 6′ from DER, 179′ left of centerline, 64′ AGL/263′ MSL.
Rwy 28L: Tree 743′ from DER, 619′ left of centerline, up to 100′ AGL/240′ MSL.
Tree 2.9 NM from DER, 2298′ left of centerline, up to 100′ AGL/640′ MSL.
Tree 2.9 NM from DER, 4578′ left of centerline, 114′ AGL/853′ MSL.

SW-2, 14 JAN 2010 to 11 FEB 2010

MOSS LANDING VISUAL RWY 28L

AL-271 (FAA)

MONTEREY PENINSULA (MRY)
MONTEREY, CALIFORNIA



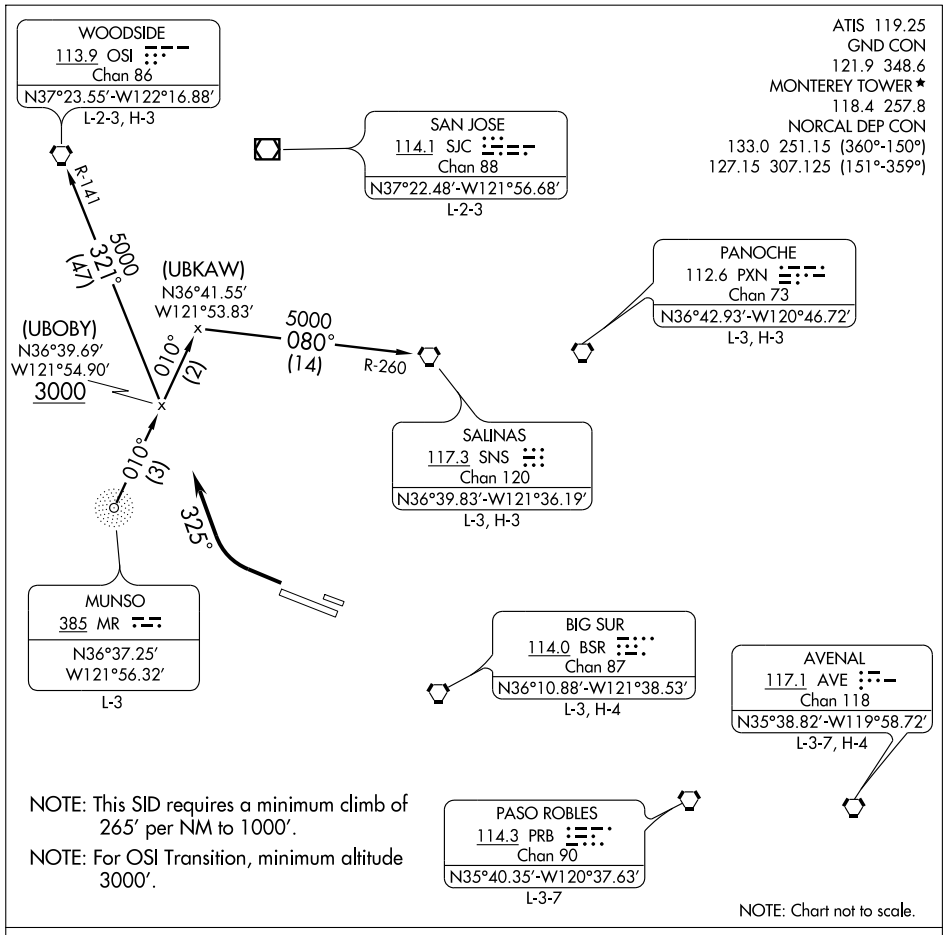
MOSS VISUAL APPROACH RWY 28L
PROCEDURE NOT AUTHORIZED AT NIGHT
PROCEDURE NOT AUTHORIZED
WHEN CONTROL TOWER CLOSED

NOTES: Due to practice approaches to RWY 10R, RWY 28L LOC not always activated during VFR conditions.

MUNSO TWO DEPARTURE

SL-271 (FAA)

MONTEREY PENINSULA (MRY)
MONTEREY, CALIFORNIA



NOTE: This SID requires a minimum climb of 265' per NM to 1000'.

NOTE: For OSI Transition, minimum altitude 3000'.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 28L/R: After leaving 1000', or as directed by tower, turn right heading 325° and join the 010° bearing from MUNSO NDB, thence via assigned route or transition. Maintain 6000'. Expect clearance to filed altitude five minutes after departure.

LOST COMMUNICATIONS: If no transmissions received for one minute after departure, proceed direct SNS VORTAC,then via assigned fix/route. Climb to 6000' or assigned altitude, whichever is higher.

SALINAS TRANSITION (MR2.SNS): From over MUNSO NDB via MR 010° bearing and SNS R-260 to SNS VORTAC.

WOODSIDE TRANSITION (MR2.OSI): From over MUNSO NDB via MR 010° bearing and OSI R-141 to OSI VORTAC.

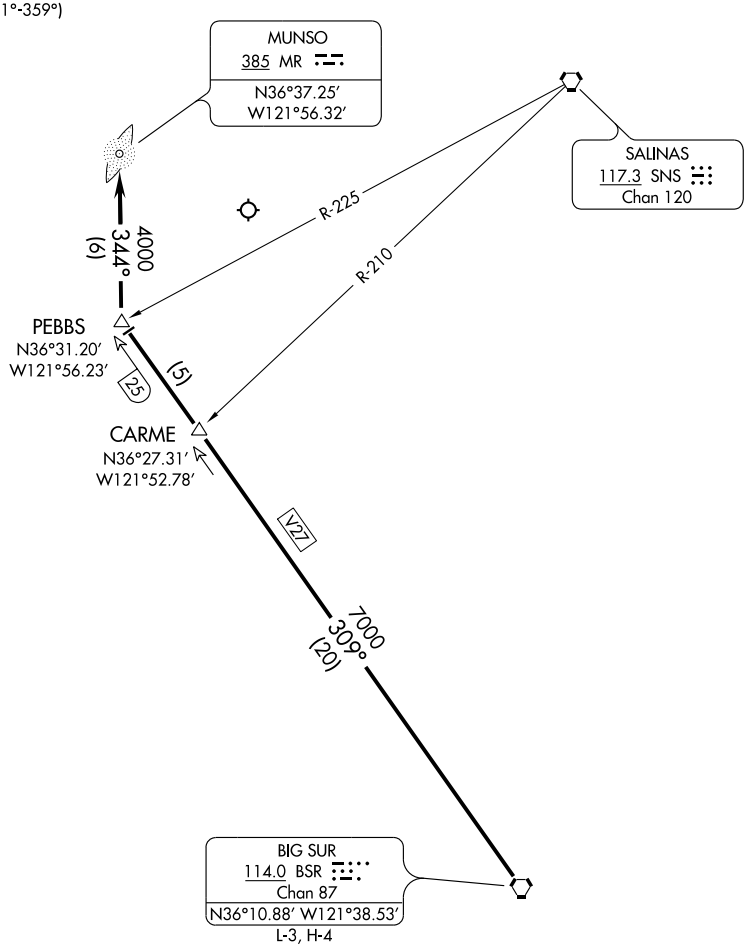
(BSR.PEBB1) 09239

PEBBS ONE ARRIVAL

ST-271 (FAA)

MONTEREY PENINSULA
MONTEREY, CALIFORNIA

ATIS
119.25
NORCAL APP CON
133.0 251.15 (360°-150°)
127.15 307.125 (151°-359°)
OAKLAND CENTER
128.7 307.0



NOTE: ADF required

From over BSR VORTAC via BSR R-309 to PEBBS Int/DME Fix, thence via 344° course to MUNSO LOM. Expect ILS Runway 10R Approach.

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3513
098°	TDZE	250
	Apt Elev	257

RNAV (GPS) RWY 10L
MONTEREY PENINSULA (MRY)

Circling NA south of Rwy 10R-28L.
DME/DME RNP- 0.3 NA.
When control tower closed, straight-in minimums NA.

MISSED APPROACH: Climb to 5000 direct YOGUY and via 042° track to SNS VORTAC and hold, continue climb-in-hold to 5000.

ATIS	NORCAL APP CON	MONTEREY TOWER★	GND CON	CLNC DEL	UNICOM
119.25	133.0 251.15 (360°-150°) 127.15 307.125 (151°-359°)	118.4 (CTAF) L 257.8	121.9 348.6	135.45	122.95

Procedure NA for arrivals at SHOEY via V27 northwest bound.

EUGEN
4000
129°
(25.6)
(IAF)
SANTY
3600 NoPT
167°
(18.6)
(IAF)
SHOEY
3600 NoPT
136°
(5.2)
098°
5 NM
278°
(IF/IAF)
KEDVE
2200
098°
(6.5)
(FAF)
CURMI
853± ∧
∧418
RW10L
042°
(10.4)
YOGUY
1230± ∧
∧1340
4000
256°
(23.2)
5 NM
264°
084°
SALINAS
SNS
3635 ∧
MSA RW10L 25 NM
6300
1000
2000
3000
2000

ELEV 257 D

098° to RW10L
10R
10L
TDZE 250
240±∧
1.3% UP
1.7% UP
3513 X 60
7616 X 150
210±
TWR 301
347
28R
28L

5 NM Holding Pattern
KEDVE
5000
YOGUY
042° track
SNS
CURMI
3.1 NM to RW10L
3600
278°
098°
098°
3.05°
TCH 45
2200
RW10L
6.5 NM
2.9 NM
3.1 NM

CATEGORY	A	B	C	D
LNAV MDA	1260-1¼ 1010 (1100-1¼)	1260-1½ 1010 (1100-1½)	NA	
CIRCLING	1260-1¼ 1003 (1100-1¼)	1260-1½ 1003 (1100-1½)	NA	

MIRL Rwy 10L-28R
HIRL Rwy 10R-28L L
REIL Rwy 28L L

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	7616
098°	TDZE	193
	Apt Elev	257

RNAV (GPS) Y RWY 10R

MONTEREY PENINSULA (MRY)

Circling NA south of Rwy 10R-28L.
DME/DME RNP -0.3 NA.

MALSR

MISSED APPROACH: Climbing left turn to 2600 direct ZEBED and hold.

ATIS	NORCAL APP CON	MONTEREY TOWER★	GND CON	CLNC DEL	UNICOM
119.25	133.0 251.15 (360°-150°) 127.15 307.125 (151°-359°)	118.4 (CTAF) L 257.8	121.9 348.6	135.45	122.95

(IAF) SANTY
2600 NoPT
163° (19.2)
EUGEN
3600
129° (25.6)
(IAF) SHOEY
2600 NoPT
130° (6.4)
(IF/IAF) ZEBED
098°
5 NM
278°
1700
098° (6)
(FAF) MINCK
HEKIV 2.7 NM to RW10R
853±
519±
418
(MAP) DIZZY
3800
310° (10.3)
PEBBS
SALINAS SNS
3600
254° (22)
1230 ±
1340
1000
2000
MSA DIZZY 25 NM
6300
ELEV 257 D
098° to RW10R
TDZE 193
240±
10R
10L
1.3% UP
3513 X 60
1.7% UP
7616 X 150
28R
28L
210±
TWR 301
347
3242
2000

5 NM Holding Pattern
ZEBED
MINCK
HEKIV 2.7 NM to RW10R
1.1 NM to DIZZY
2600
278°
098°
098°
1700
3.38°
TCH 52
1180
DIZZY
VGSI and descent angles not coincident
6 NM
1.9 NM
0.8 NM
1.1 NM
0.8
2600
ZEBED

CATEGORY	A	B	C	D
LNAV MDA	800/24 607 (600-½)		800/60 607 (600-1¼)	800-1½ 607 (600-1½)
CIRCLING	800-1 543 (600-1)		840-1¾ 583 (600-1¾)	1080-2¾ 823 (900-2¾)

MIRL Rwy 10L-28R
HIRL Rwy 10R-28L L
REIL Rwy 28L L

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	6616
264°	TDZE	247
	Apt Elev	257

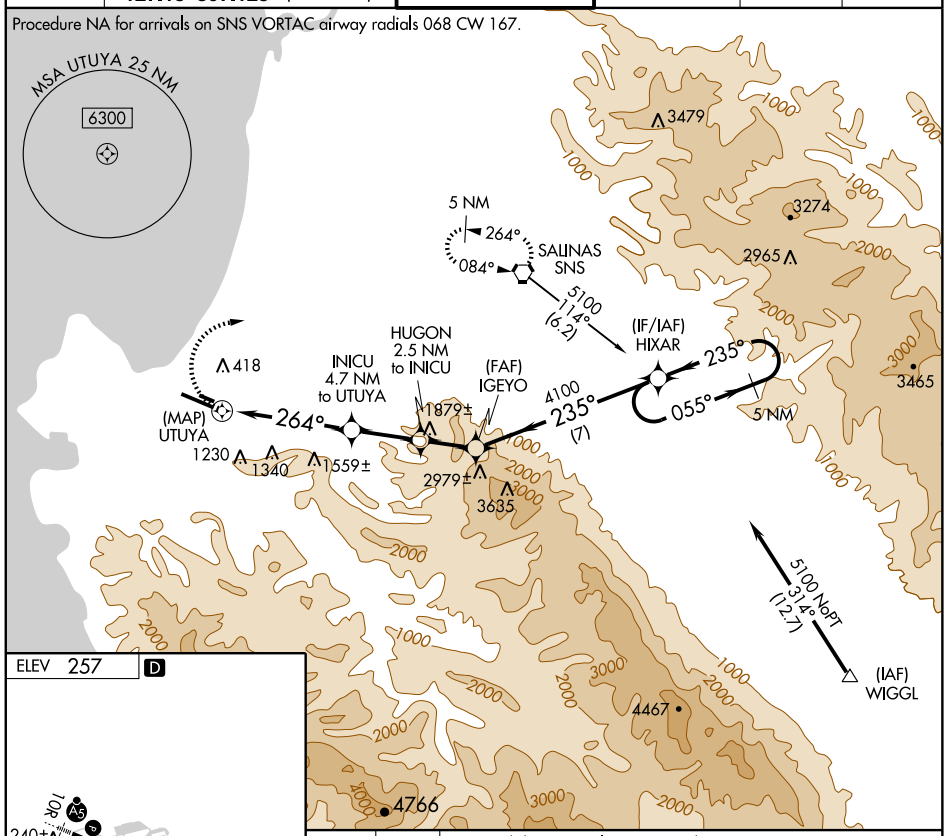
RNAV (GPS) Y RWY 28L
MONTEREY PENINSULA (MRY)

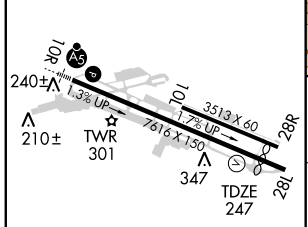
Circling NA south of Rwy 10R-28L.
DME/DME RNP -0.3 NA.
Visibility reduction by helicopters NA.

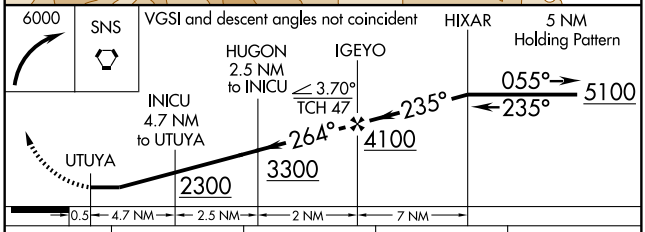
MISSED APPROACH: Climbing right turn to 6000 direct to SNS VORTAC and hold, continue climb-in-hold to 6000.

ATIS	NORCAL APP CON	MONTEREY TOWER ★	GND CON	CLNC DEL	UNICOM
119.25	133.0 251.15 (360°-150°) 127.15 307.125 (151°-359°)	118.4 (CTAF) L 257.8	121.9 348.6	135.45	122.95

Procedure NA for arrivals on SNS VORTAC airway radials 068 CW 167.







CATEGORY	A	B	C	D
LNAV MDA	1600/60 1353 (1400-1¼)	1600-1½ 1353 (1400-1½)	1600-3 1353 (1400-3)	NA
CIRCLING	1600-1¼ 1343 (1400-1¼)	1600-1½ 1343 (1400-1½)	1600-3 1343 (1400-3)	NA

MIRL Rwy 10L-28R
HIRL Rwy 10R-28L L
REIL Rwy 28L L

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	7616
CH 70699	098°	TDZE	193
W10A		Apt Elev	257

RNAV (GPS) Z RWY 10R

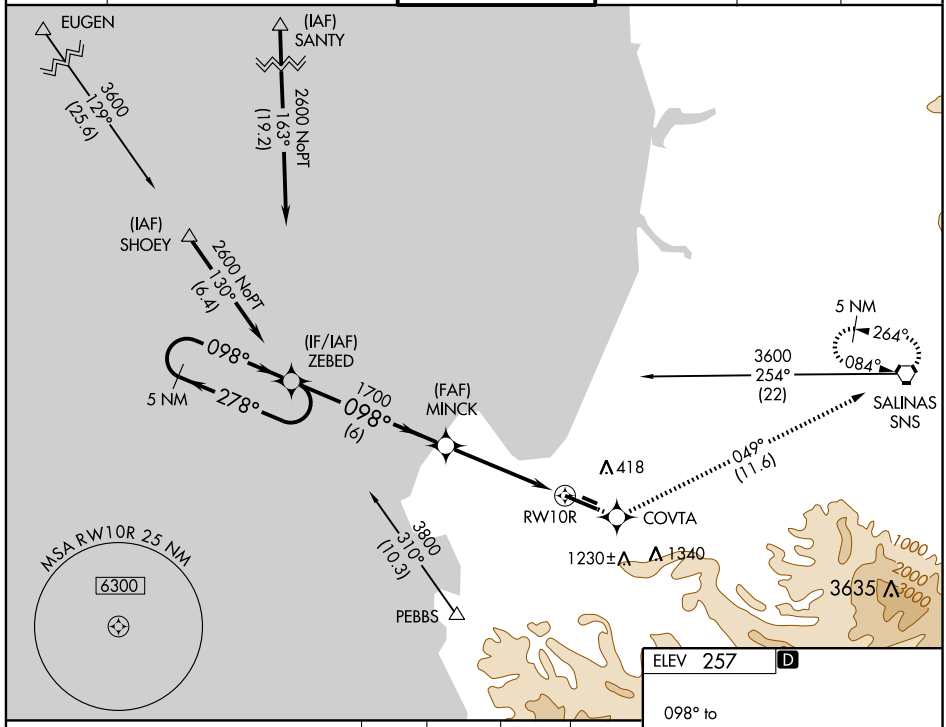
MONTEREY PENINSULA (MRY)

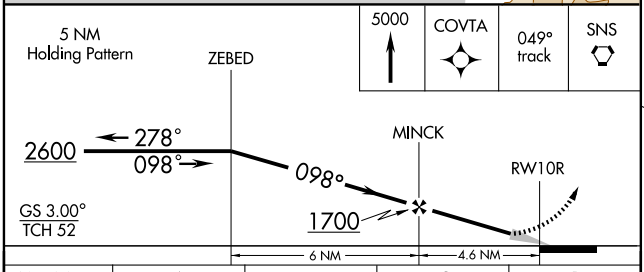
DME/DME RNP- 0.3 NA.
For inoperaive MALSR, increase LPV all Cats visibility to 1¾ mile.

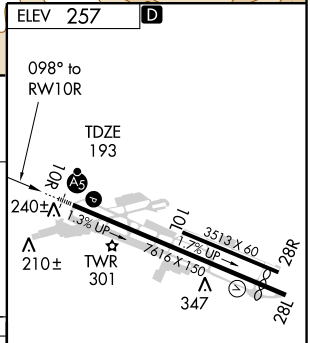
MALSR

MISSED APPROACH: Climb to 5000 direct COVTA and via 049° track to SNS VORTAC and hold, continue climb-in-hold to 5000.

ATIS	NORCAL APP CON	MONTEREY TOWER ★	GND CON	CLNC DEL	UNICOM
119.25	133.0 251.15 (360°-150°) 127.15 307.125 (151°-359°)	118.4 (CTAF) L 257.8	121.9 348.6	135.45	122.95







CATEGORY	A	B	C	D
LPV DA	679/60 486 (500-1¼)			
LNAV/VNAV DA	NA			
LNAV MDA	NA			
CIRCLING	NA			

MIRL Rwy 10L-28R
HIRL Rwy 10R-28L L
REIL Rwy 28L L

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	6616
279°	TDZE	247
	Apt Elev	257

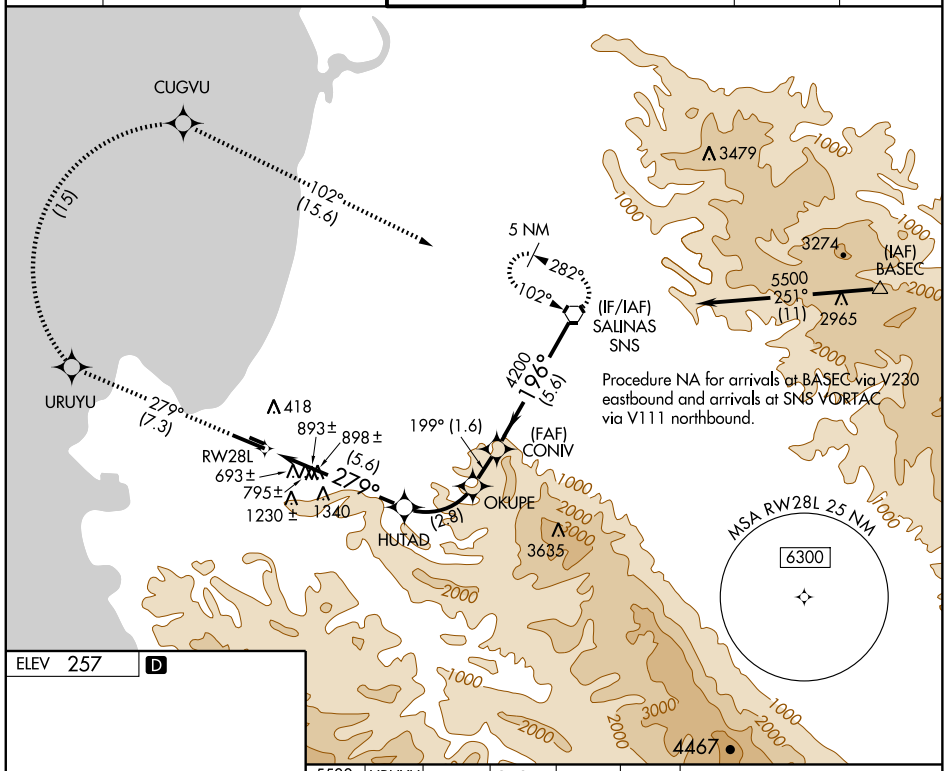
RNAV (RNP) Z RWY 28L

MONTEREY PENINSULA (MRY)

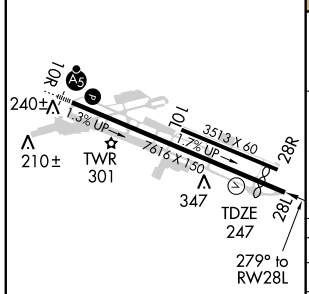
RF and GPS required. When VGSI inoperative, RNP 0.30 DA NA at night. For uncompensated Baro-VNAV systems, procedure NA below 0°C (32°F) or above 39°C (102°F). Visibility reduction by helicopters NA.

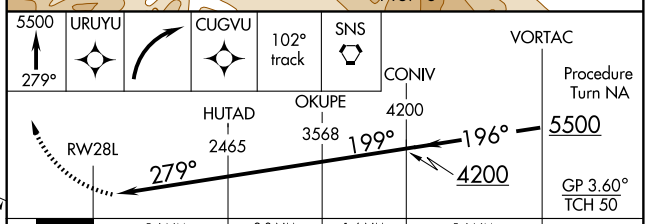
MISSED APPROACH: Climb to 5500 via 279° track to URUYU and via right turn to CUGVU and via 102° track to SNS VORTAC and hold.

ATIS	NORCAL APP CON	MONTEREY TOWER★	GND CON	CLNC DEL	UNICOM
119.25	133.0 251.15 (360°-150°) 127.15 307.125 (151°-359°)	118.4 (CTAF) L 257.8	121.9 348.6	135.45	122.95



SW-2, 14 JAN 2010 to 11 FEB 2010





CATEGORY	A	B	C	D
RNP 0.10 DA	497/40	250 (300-¾)		NA
RNP 0.20 DA	1196-2¾	949 (1000-2¾)		NA
RNP 0.30 DA	1257-3	1010 (1000-3)		NA

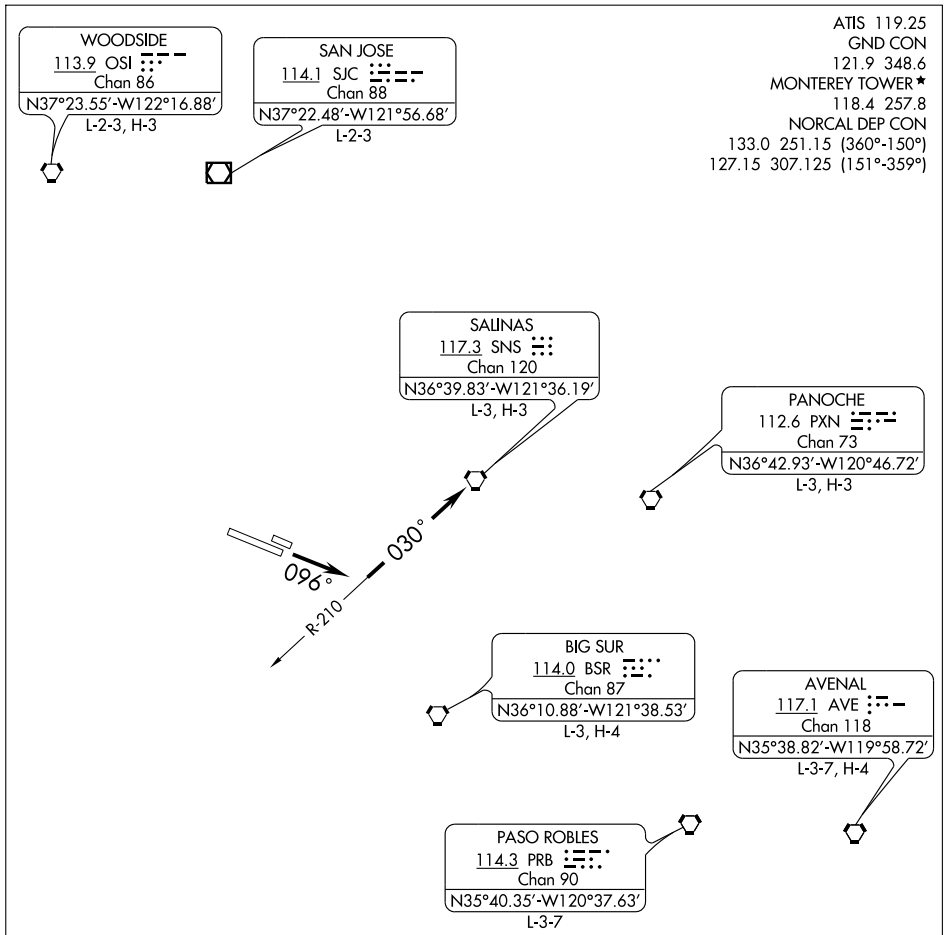
MIRL Rwy 10L-28R
HIRL Rwy 10R-28L L
REIL Rwy 28L L

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

SECA TWO DEPARTURE

SL-271 (FAA)

MONTEREY PENINSULA (MRY)
MONTEREY, CALIFORNIA



NOTE: This SID requires a minimum climb of 405' per NM to 4000'.

NOTE: Minimum assignable altitude 6000'.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

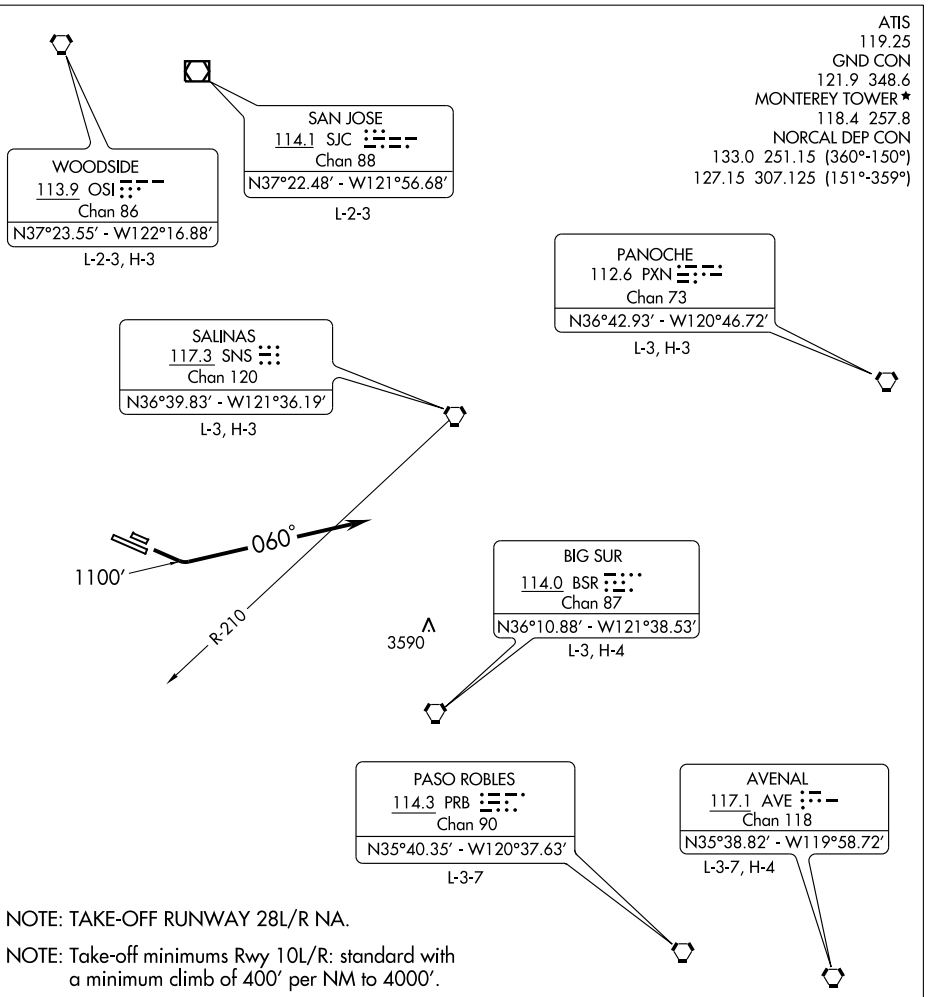
TAKE-OFF RUNWAY 10L/R: Climb via heading 096° and intercept the SNS R-210 to SNS VORTAC, thence via assigned route, maintain 6000'. Expect clearance to filed altitude 5 minutes after departure.

LOST COMMUNICATIONS: If no transmissions received for one minute after departure, proceed to the SNS VORTAC, then via assigned fix/route. Climb to 6000' or assigned altitude, whichever is higher.

TORO FIVE DEPARTURE

SL-271 (FAA)

MONTEREY PENINSULA (MRY)
MONTEREY, CALIFORNIA



NOTE: TAKE-OFF RUNWAY 28L/R NA.

NOTE: Take-off minimums Rwy 10L/R: standard with a minimum climb of 400′ per NM to 4000′.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 10L/R: Climb runway heading to 1100′, then climbing left turn heading 060°.Expect vectors to filed route after passing SNS R-210. Maintain 6000′ or assigned higher altitude. Expect clearance to filed altitude ten minutes after departure.

LOST COMMUNICATIONS: If no transmissions are received within one minute after departure climb direct SNS VORTAC, then via assigned fix/route. Maintain 6,000′ or assigned higher altitude.

SW-2, 14 JAN 2010 to 11 FEB 2010

AIRPORT DIAGRAM

MOUNTAIN VIEW/MOFFETT FEDERAL AIRFIELD (NUQ)
AL-410 (FAA)
MOUNTAIN VIEW, CALIFORNIA

ATIS
124.175 283.0
MOFFETT TOWER ★
119.55 346.25
GND CON
121.85 336.4
CLNC DEL
380.8

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

37°26'N

DANGEROUS CARGO AREA

137 X 200

14L

ELEV 1

0.3% UP

143.0°

14R

ELEV 0

D

C

143.0°

VAR 14.7°E

JANUARY 2005
ANNUAL RATE OF CHANGE
0.1° W

RWY 14L-32R
S64, D110, ST144, SBTT410, TDT528, TRT390
RWY 14R-32L
S82, D142, ST175, DT300, DDT609, TDT814

0.4% UP

B

NE RAMP

37°25'N

211 RAMP

FIRE STATION

WEST PARALLEL

8127 X 200

9202 X 200

EAST PARALLEL

HANGAR 2

HANGAR 3

238

HANGAR 1

WEST RAMP

ANG RAMP

A

BASE OPS

CONTROL TOWER

TRANSIENT RAMP

323.0°

323.0°

AA

32R

ELEV 27

32L

FIELD ELEV 32

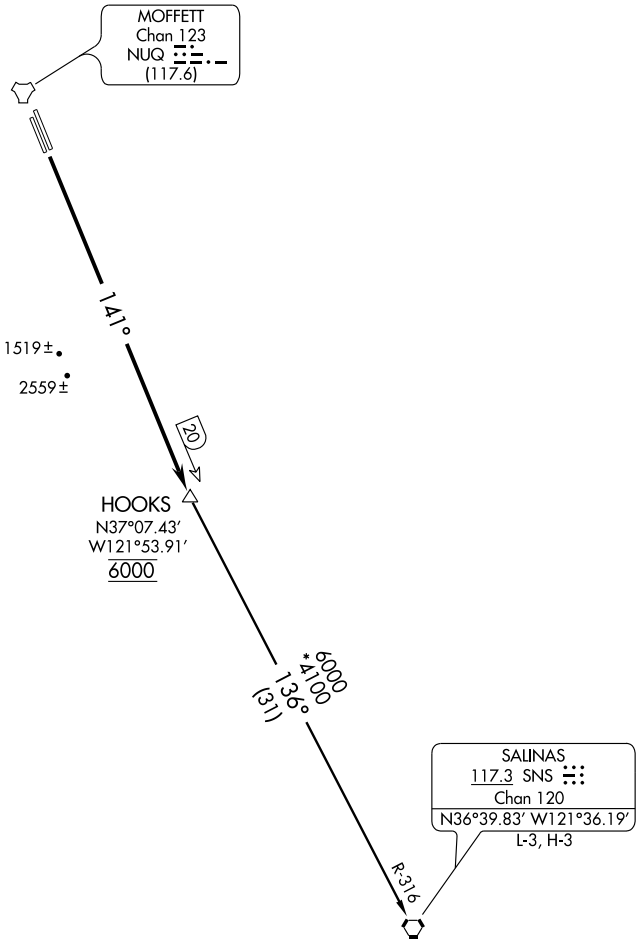
122°03'W

122°02'W

SW-2, 14 JAN 2010 to 11 FEB 2010

HOOKS ONE DEPARTURE

ATIS
124.175 283.0
CLNC DEL
380.8
GND CON
121.85 336.4
MOFFETT TOWER★
119.55 (CTAF) 346.25
NORCAL DEP CON
120.1 290.25



NOTE: TACAN required.

TAKE-OFF MINIMUMS
Rwy 14R/14L: Standard with the following minimum climb gradients:
Rwy 14R: Obstacle climb of 314' per NM to 4900, ATC climb of 332' per NM to 6000.
Rwy 14L: Obstacle climb of 314' per NM to 4900, ATC climb of 328' per NM to 6000.
Rwy 32R/32L: NA, ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 14L/14R: Climb via NUQ R-141 to cross HOOKS/NUQ 20 DME at 6000, thence . . . .

. . . . via (transition).

VALLEY TRANSITION (HOOKS1.SNS): From over HOOKS DME via SNS R-316 to SNS VORTAC.

LOC I-NUQ	APP CRS	Rwy Idg	9202
110.35	322°	TDZE	27
		Apt Elev	32

ILS OR LOC/DME RWY 32R

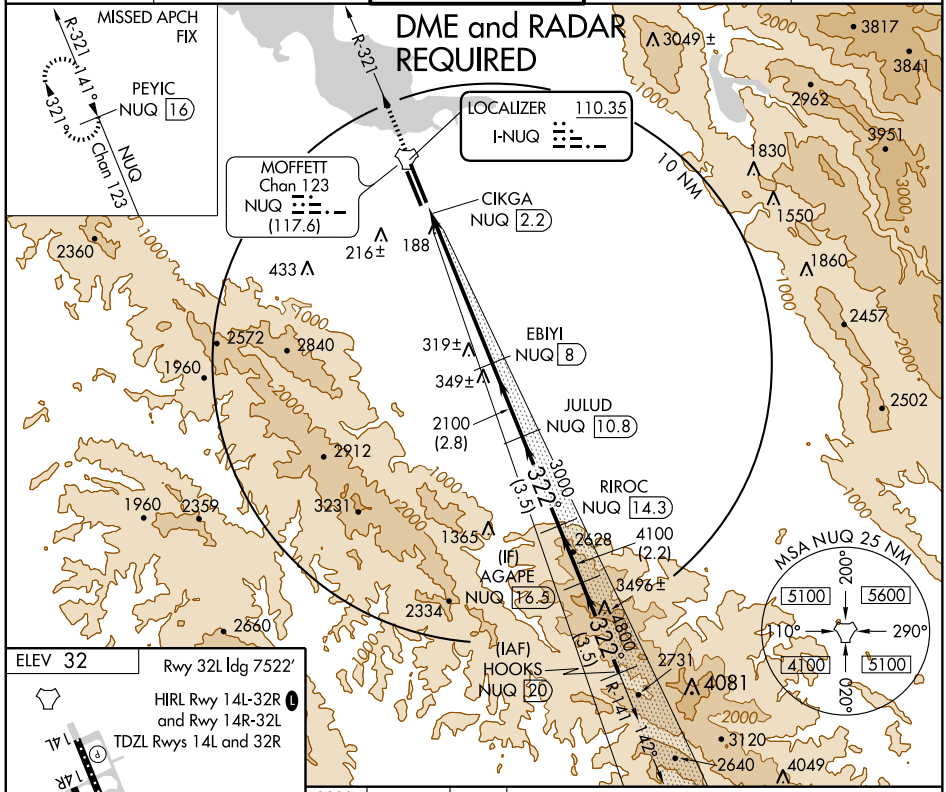
MOUNTAIN VIEW/ MOFFETT FEDERAL AFLD (NUQ)

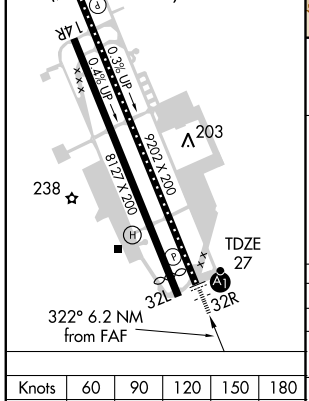
T NA — DME from NUQ TACAN. Simultaneous reception of I-NUQ and NUQ DME required. For inoperative ALSF, increase S-LOC 32R Cats A/B visibility to RVR 5000 and Cat E to 2. Inoperative table does not apply to S-ILS 32R. TACAN required.

ALSF-1

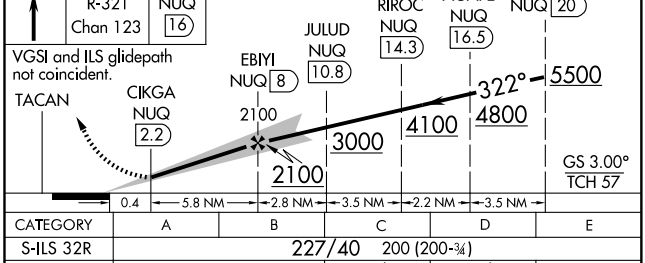
MISSED APPROACH: Climb to 3200 via NUQ TACAN and NUQ R-321 to PEYIC/NUQ 16 DME and hold.

ATIS	NORCAL APP CON	MOFFETT TOWER ★	GND CON	CLNC DEL
124.175 283.0	120.1 290.25	119.55 (L) (CTAF) 346.25	121.85 336.4	380.8





Knots	60	90	120	150	180
Min:Sec					



CATEGORY	A	B	C	D	E
S-ILS 32R	227/40 200 (200-¾)				
S-LOC 32R	580/40 553 (600-¾)		580/50 553 (600-1)	580/60 553 (600-1¼)	580-1½ 553 (600-1½)
CIRCLING	580-1 548 (600-1)		580-1½ 548 (600-1½)	600-2 568 (600-2)	840-2¾ 808 (900-2¾)

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC I-MNQ	APP CRS	Rwy Idg	9202
110.35	142°	TDZE	2
		Apt Elev	32

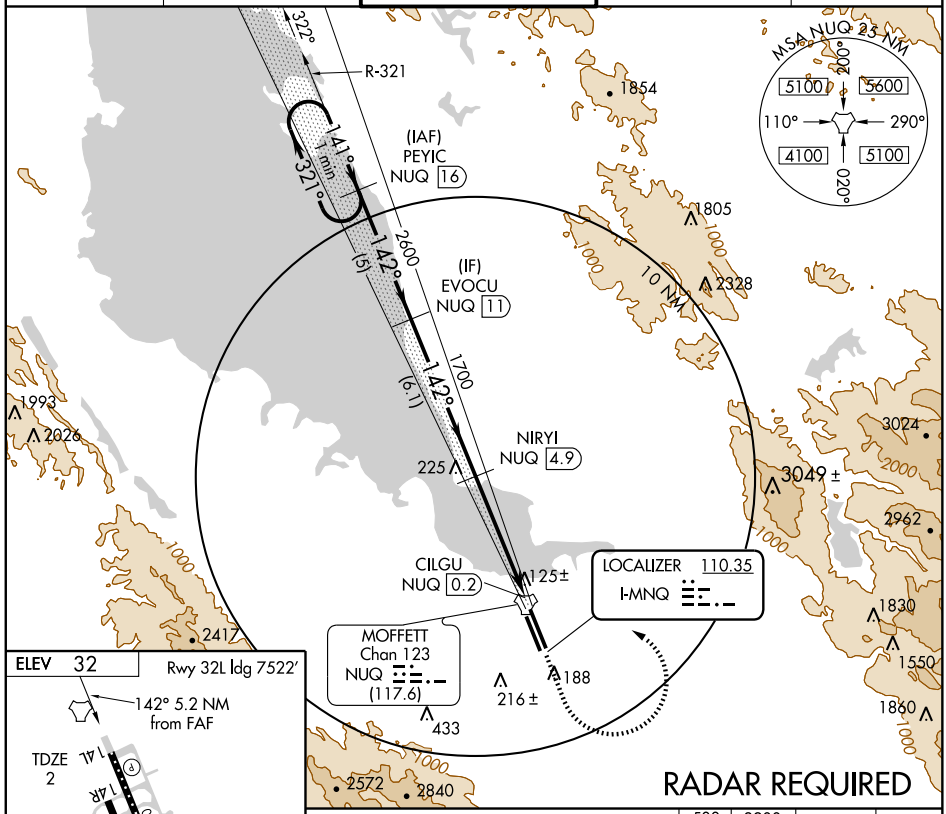
LOC/DME RWY 14L

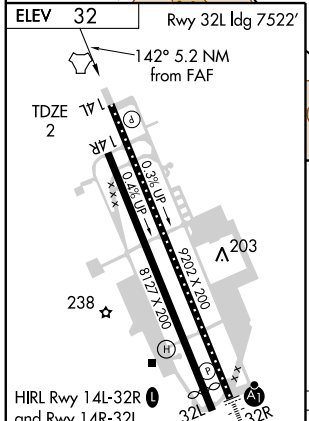
MOUNTAIN VIEW/MOFFETT FEDERAL AFLD (NUQ)

T NA — DME from NUQ TACAN. Simultaneous reception of I-MNQ and NUQ DME required. TACAN required.

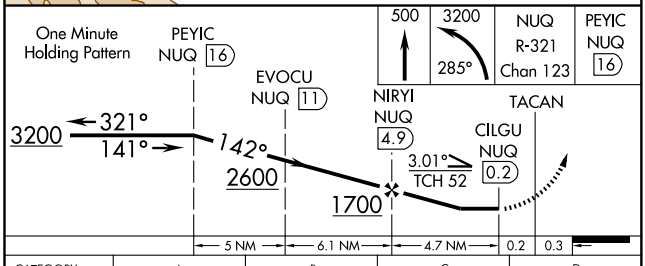
MISSED APPROACH: Climb to 500 then climbing left turn to 3200 via heading 285° and NUQ R-321 to PEYIC NUQ 16 DME and hold.

ATIS	NORCAL APP CON	MOFFETT TOWER ★	GND CON	CLNC DEL
124.175 283.0	120.1 290.25	119.55 L (CTAF) 346.25	121.85 336.4	380.8





Knots	60	90	120	150	180
Min:Sec					



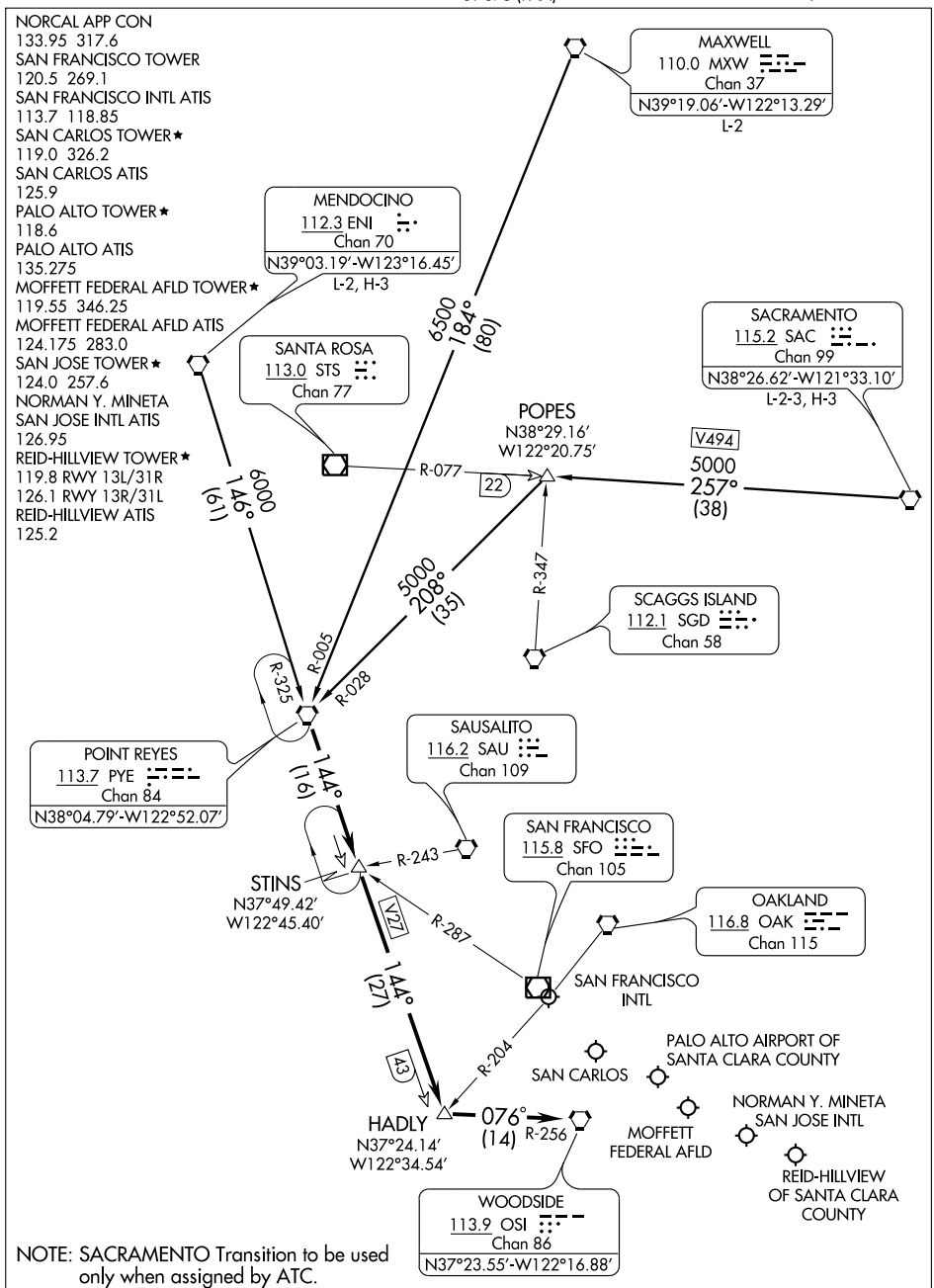
CATEGORY	A	B	C	D
S-LOC 14L	380-1 378 (400-1)			380-1¼ 378 (400-1¼)
CIRCLING	540-1 508 (600-1)		540-1½ 508 (600-1½)	600-2 568 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

POINT REYES ONE ARRIVAL

ST-375 (FAA)

SAN FRANCISCO, CALIFORNIA



NOTE: SACRAMENTO Transition to be used only when assigned by ATC.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SW-2, 14 JAN 2010 to 11 FEB 2010

ARRIVAL DESCRIPTION

MAXWELL TRANSITION (MXW.PYE1): From over MXW VORTAC via MXW R-184 and PYE R-005 to PYE VORTAC. Thence....

MENDOCINO TRANSITION (ENI.PYE1): From over ENI VORTAC via ENI R-146 and PYE R-325 to PYE VORTAC. Thence....

SACRAMENTO TRANSITION (SAC. PYE1): From over SAC VORTAC via SAC R-257 and PYE R-028 to PYE VORTAC. Thence....

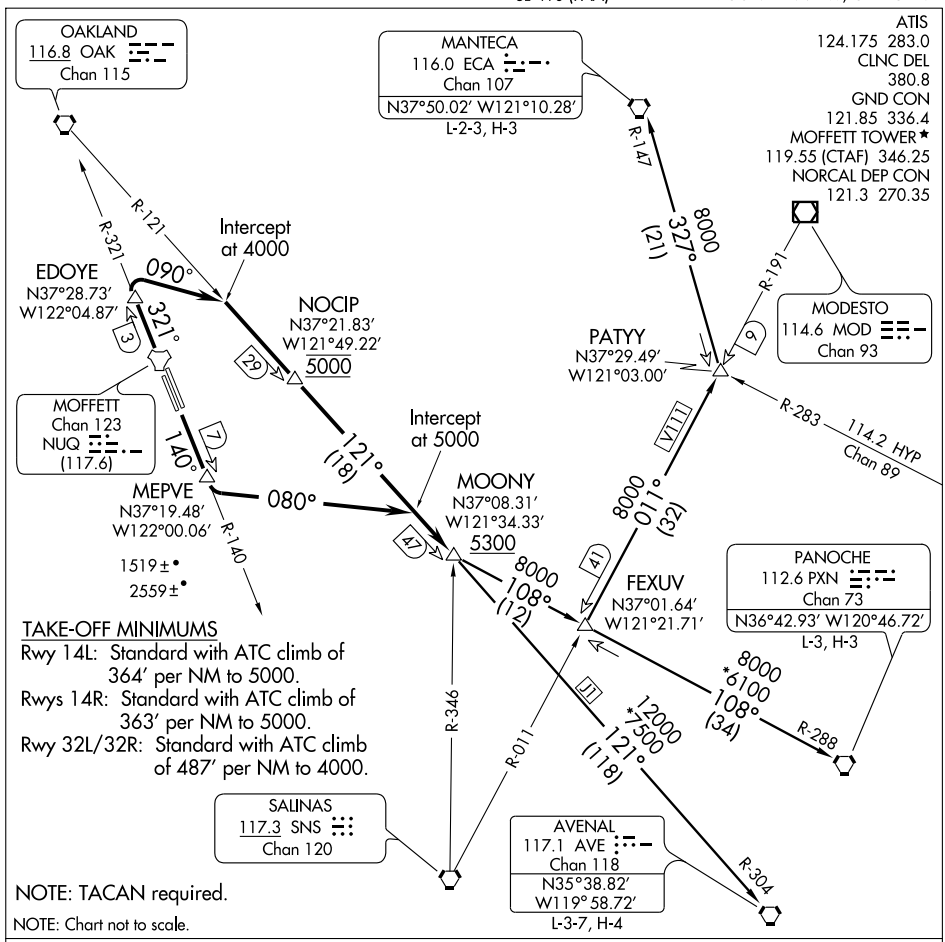
....From over PYE VORTAC via PYE R-144 to HADLY INT, then via OSI R-256 to OSI VORTAC. Expect radar vectors to final approach course.

SW-2, 14 JAN 2010 to 11 FEB 2010

(SOLN1.MOONY) 07298

SOUTHLAND ONE DEPARTURE

MOUNTAIN VIEW/ MOFFETT FEDERAL AFLD (NUQ)
SL-410 (FAA)
MOUNTAIN VIEW, CALIFORNIA



TAKE-OFF MINIMUMS

Rwy 14L: Standard with ATC climb of 364′ per NM to 5000.
Rwys 14R: Standard with ATC climb of 363′ per NM to 5000.
Rwy 32L/32R: Standard with ATC climb of 487′ per NM to 4000.

NOTE: TACAN required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 14L/14R: Climb via NUQ R-140 to MEPVE/NUQ 7 DME, then climbing left turn via heading 080° to intercept OAK R-121 at 5000, then via OAK R-121 to MOONY INT, thence . . . .

TAKE-OFF RUNWAYS 32L/32R: Climb via NUQ R-321 to EDOYE/NUQ 3 DME, then climbing right turn via heading 090° to intercept OAK R-121 at 4000, then via OAK R-121 to cross NOCIP/OAK 29 DME at 5000, then via OAK R-121 to MOONY INT, thence . . . .

. . . . cross MOONY INT at or above 5300, then via (Transition).

AVENAL TRANSITION (SOLN1.AVE): From over MOONY INT via OAK R-121 and AVE R-304 to AVE VORTAC.

MANTECA TRANSITION (SOLN1.ECA): From over MOONY INT via PXN R-288, MOD R-191, and ECA R-147 to ECA VORTAC.

PANOCHE TRANSITION (SOLN1.PXN): From over MOONY INT via PXN R-288 to PXN VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

TACAN	APP CRS		
NUQ Chan 123	321°	Rwy Idg 7522 TDZE 31 Apt Elev 32	

TACAN RWY 32L

MOUNTAIN VIEW/ MOFFETT FEDERAL AFLD (NUQ)

T
NA

MISSED APPROACH: Climb to 3200 via NUQ TACAN and NUQ R-321 to PEYIC/16 DME and hold.

ATIS	NORCAL APP CON	MOFFETT TOWER ★	GND CON	CLNC DEL
124.175 283.0	120.1 290.25	119.55 (L) (CTAF) 346.25	121.85 336.4	380.8

MISSED APCH FIX

R-321
141°
321°
PEYIC
NUQ 16
NUQ Chan 123

RADAR REQUIRED

MOFFETT
Chan 123
NUQ
(117.6)

10 NM

DIYEB
NUQ 2.2

EKECE
NUQ 8

JOVDA
NUQ 10.8

RURSE
NUQ 14.3

CEVGI
NUQ 16.5

HOSNU
NUQ 20

(IF)
(IAF)

3000
321°
(3.5)
4100
(2.2)
4800
(3.5)

MSA NUQ 25 NM
200°
020°
110°
290°
5100
5600
4100
5100

ELEV 32
Rwy 32L Idg 7522'
HIRL Rwy 14L-32R (L)
and Rwy 14R-32L
TDZL Rwys 14L and 32R

14L
14R
0.3% UP
0.4% UP
9202 X 200
8127 X 200
TDZE 31
32L
32R
Touchdown
321° 6.2 NM from FAF

Knots	60	90	120	150	180
Min:Sec					

3200

NUQ R-321 Chan 123	PEYIC NUQ 16

TACAN
NUQ 3.4
DIYEB NUQ 2.2
3.01°
TCH 55
2100
3000
4100
4800
5500
321°

0.4 | 1.3 NM | 4.5 NM | 2.8 NM | 3.5 NM | 2.2 NM | 3.5 NM

CATEGORY	A	B	C	D	E
S-32L	620-1	589 (600-1)	620-1½ 589 (600-1½)	620-1¾ 589 (600-1¾)	620-2 589 (600-2)
CIRCLING	620-1	588 (600-1)	620-1½ 588 (600-1½)	620-2 588 (600-2)	840-2¾ 808 (900-2¾)

SW-2, 14 JAN 2010 to 11 FEB 2010

TACAN	APP CRS		
NUQ Chan 123	321°	Rwy ldg 9202 TDZE 27 Apt Elev 32	

TACAN RWY 32R

MOUNTAIN VIEW/MOFFETT FEDERAL AFLD (NUQ)

T ANA For inoperative ALSF, increase S-32R Cats A/B visibility to RVR 5000 and Cat E to 2.

ALSF-1

MISSED APPROACH: Climb to 3200 via NUQ TACAN and NUQ R-321 to PEYIC/16 DME and hold.

ATIS	NORCAL APP CON	MOFFETT TOWER ★	GND CON	CLNC DEL
124.175 283.0	120.1 290.25	119.55 L (CTAF) 346.25	121.85 336.4	380.8

MISSED APCH FIX

R-321 141° 321° PEYIC NUQ 16 NUQ Chan 123

RADAR REQUIRED

MOFFETT Chan 123 NUQ (117.6)

R-321

10 NM

DIYEB NUQ 2.2

EKECE NUQ 8

JOVDA NUQ 10.8

RURSE NUQ 14.3

(IF) CEVGI NUQ 16.5

(IAF) HOSNU NUQ 20

R-141

MSA NUQ 25 NM

200° 020° 110° 290°

5100 5600 4100 5100

3024 3817 3049± 3841 2962 3951 1830 1550 1860 2457 2502 2417 2360 433 216± 188 2572 2840 1960 349± 379± 2100 (2.8) 2912 1960 2359 3231 1365 2628 4100 (2.2) 3496± 2834 3000 321° (3.5) 4800 2731 4081 3120 2640

ELEV 32

Rwy 32L ldg 7522'

HIRL Rwy 14L-32R L and Rwy 14R-32L

TDZL Rwys 14L and 32R

14L 14R 0.3% UP 0.4% UP 9202 X 200 8127 X 200 203 238 TDZE 27 32L 32R

321° 6.2 NM from FAF

3200	NUQ R-321 Chan 123	PEYIC NUQ 16

TACAN NUQ 3.5 DIYEB NUQ 2.2 3.05° TCH 52 EKECE NUQ 8 JOVDA NUQ 10.8 RURSE NUQ 14.3 CEVGI NUQ 16.5 HOSNU NUQ 20 2100 3000 4100 4800 321° 5500

0.4 1.3 NM 4.5 NM 2.8 NM 3.5 NM 2.2 NM 3.5 NM

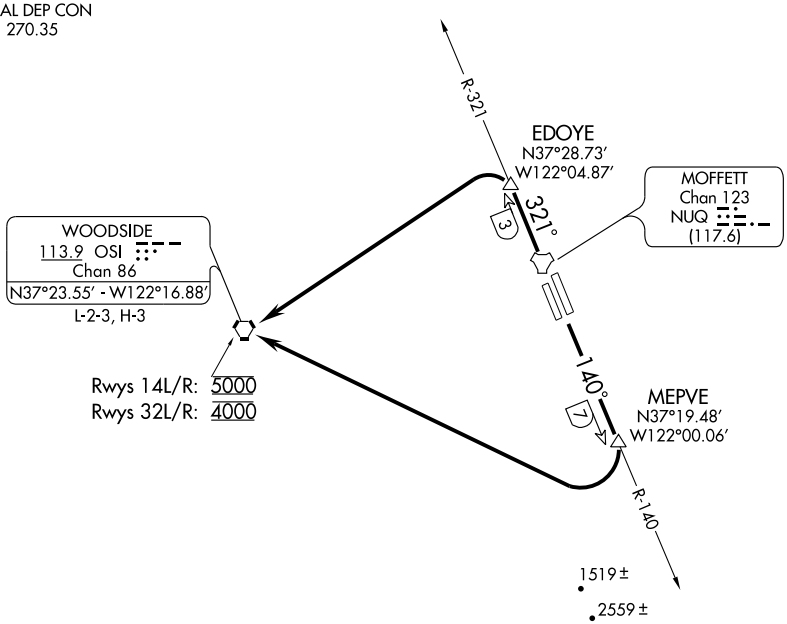
CATEGORY	A	B	C	D	E
S-32R	620/40	593 (600-¾)	620/50 593 (600-1)	620/60 593 (600-1¼)	620-1½ 593 (600-1½)
CIRCLING	620-1	588 (600-1)	620-1½ 588 (600-1½)	620-2 588 (600-2)	840-2¾ 808 (900-2¾)

Knots	60	90	120	150	180
Min:Sec					

SW-2, 14 JAN 2010 to 11 FEB 2010

WOODSIDE ONE DEPARTURE

ATIS
124.175 283.0
CLNC DEL
380.8
GND CON
121.85 336.4
MOFFETT TOWER ★
119.55 (CTAF) 346.25
NORCAL DEP CON
121.3 270.35



TAKE-OFF MINIMUMS
Rwy 14L/14R: Standard with minimum climb of 402′ per NM to 5000.
Rwy 32R: Standard with minimum climb of 250′ per NM to 4000.
Rwy 32L: Standard with minimum climb of 246′ per NM to 4000.

NOTE: TACAN required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 14L/14R: Climb via NUQ R-140 to MEPVE/NUQ 7 DME, then right turn direct to cross OSI VORTAC at 5000, thence . . . .

TAKE-OFF RUNWAYS 32L/32R: Climb via NUQ R-321 to EDOYE/NUQ 3 DME, then turn left direct to cross OSI VORTAC at 4000, thence . . . .

. . . . via RADAR vectors or assigned route.

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	6000
179°	TDZE	1350
	Apt Elev	1350

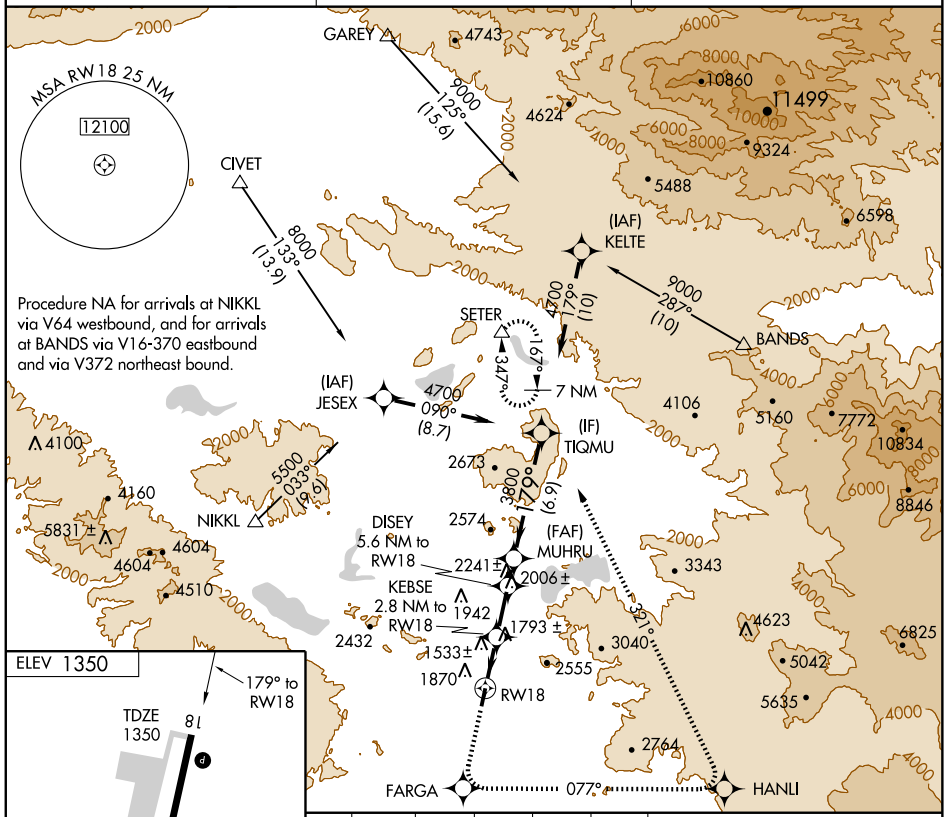
RNAV (GPS) RWY 18

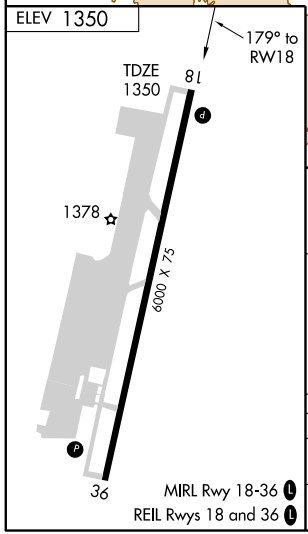
MURRIETA/TEMECULA/FRENCH VALLEY (F70)

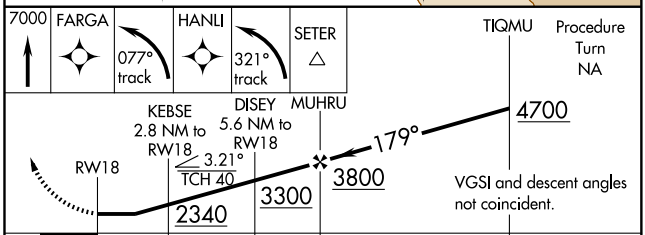
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Circling not authorized west of Rwy 18-36. When local altimeter setting not received, use Ramona altimeter setting and increase all MDAs 100 feet and all visibilities ¼ mile.

MISSED APPROACH: Climb to 7000 direct FARGA and left turn via 077° track to HANLI and left turn via 321° track to SETER and hold.

AWOS-3	MARCH APP CON ★	UNICOM
119.025	133.5 324.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1880-1	530 (600-1)	1880-1½ 530 (600-1½)	NA
CIRCLING	2040-1	690 (700-1)	2040-2 690 (700-2)	NA

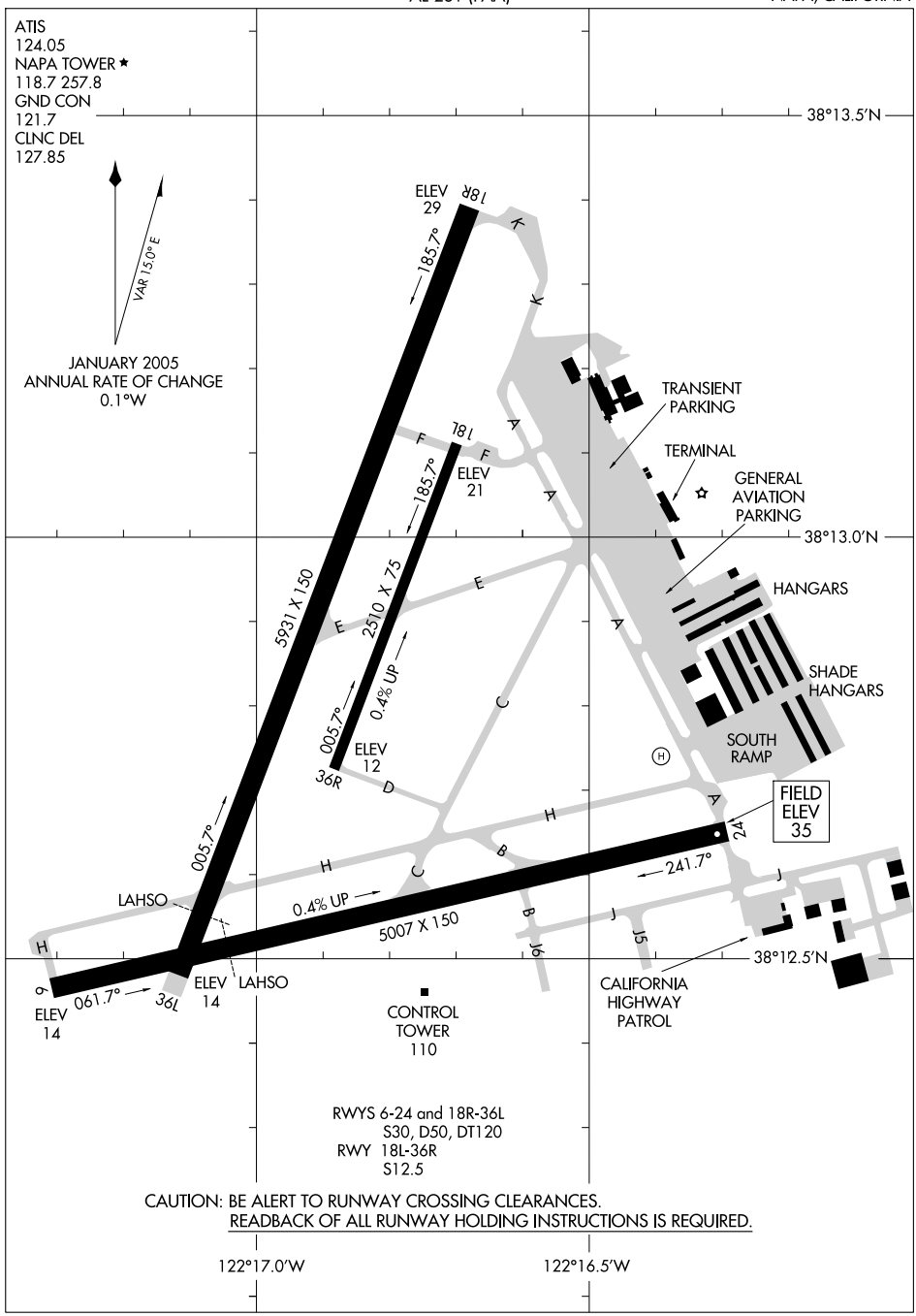
SW-3, 14 JAN 2010 to 11 FEB 2010

09183

AIRPORT DIAGRAM

AL-281 (FAA)

NAPA COUNTY (APC)
NAPA, CALIFORNIA



SW-2, 14 JAN 2010 to 11 FEB 2010

LIZRD THREE DEPARTURE

ATIS 124.05
GND CON
121.7
OAKLAND CENTER
127.8 353.5

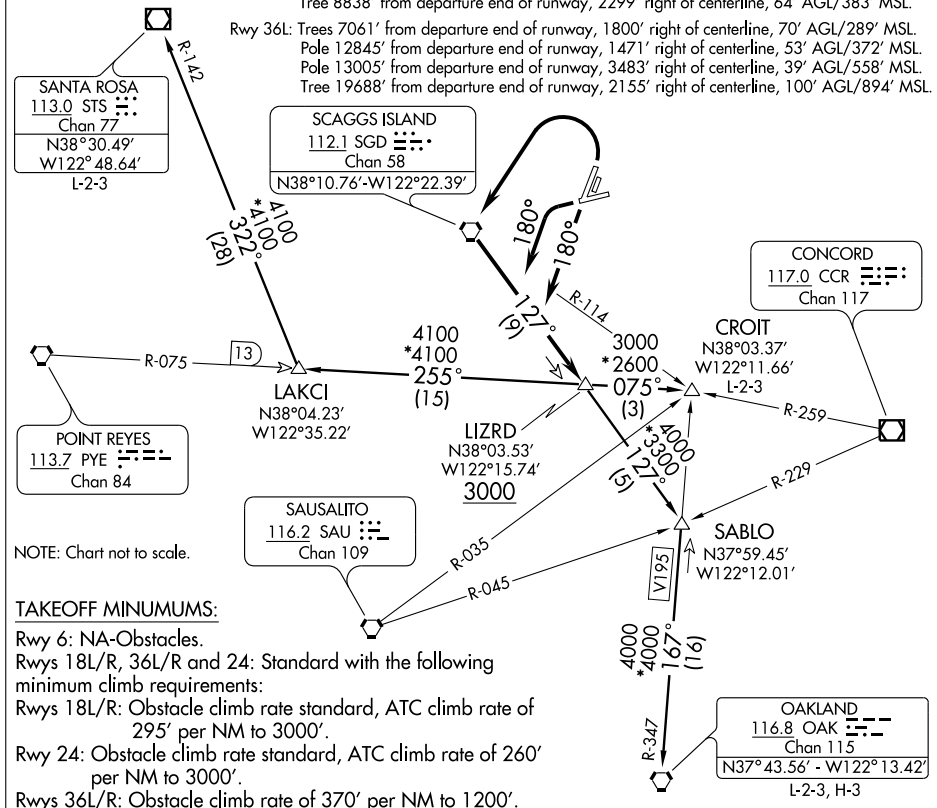
TAKEOFF OBSTACLES:

Rwy 18L: Tree 4982′ from departure end of runway, 237′ left of centerline, 58′ AGL/92′MSL.

Rwy 24: Bridge 4964′ from departure end of runway, 1716′ right of centerline, 167′ AGL/167′MSL.

Rwy 36R: Floodlight 462′ from departure end of runway, 339′ right of centerline, 29′ AGL/53′ MSL.
Tree 8701′ from departure end of runway,1286 right of centerline, 70′ AGL/289′ MSL.
Tree 8838′ from departure end of runway, 2299′ right of centerline, 64′ AGL/383′ MSL.

Rwy 36L: Trees 7061′ from departure end of runway, 1800′ right of centerline, 70′ AGL/289′ MSL.
Pole 12845′ from departure end of runway, 1471′ right of centerline, 53′ AGL/372′ MSL.
Pole 13005′ from departure end of runway, 3483′ right of centerline, 39′ AGL/558′ MSL.
Tree 19688′ from departure end of runway, 2155′ right of centerline, 100′ AGL/894′ MSL.



NOTE: Chart not to scale.

TAKEOFF MINUMUMS:

Rwy 6: NA-Obstacles.
Rwys 18L/R, 36L/R and 24: Standard with the following minimum climb requirements:
Rwys 18L/R: Obstacle climb rate standard, ATC climb rate of 295′ per NM to 3000′.
Rwy 24: Obstacle climb rate standard, ATC climb rate of 260′ per NM to 3000′.
Rwys 36L/R: Obstacle climb rate of 370′ per NM to 1200′.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 18L/R: Climb via 180° heading to intercept and proceed outbound via the SGD R-127 to LIZRD INT. Cross LIZRD INT at or above 3000′. Thence. . . .

TAKE-OFF RUNWAY 24: Turn left, climb via 180° heading to intercept and proceed outbound via the SGD R-127 to LIZRD INT. Cross LIZRD INT at or above 3000′. Thence. . . .

TAKE-OFF RUNWAYS 36L/R: Turn left direct SGD VORTAC, proceed outbound via the SGD R-127 to LIZRD INT. Cross LIZRD INT at or above 3000′. Thence. . . .

. . . . via (transition) or (assigned route).

CROIT TRANSITION (LIZRD3.CROIT): From over LIZRD INT via PYE R-075 to CROIT INT.

OAKLAND TRANSITION (LIZRD3.OAK): From over LIZRD INT via SGD R-127 and OAK R-347 to OAK VORTAC.

SANTA ROSA TRANSITION (LIZRD3.STS): From over LIZRD INT via PYE R-075 and STS R-142 to STS VOR/DME.

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC I-APC	APP CRS	Rwy Idg	5931
111.3	005°	TDZE	14
		Apt Elev	33

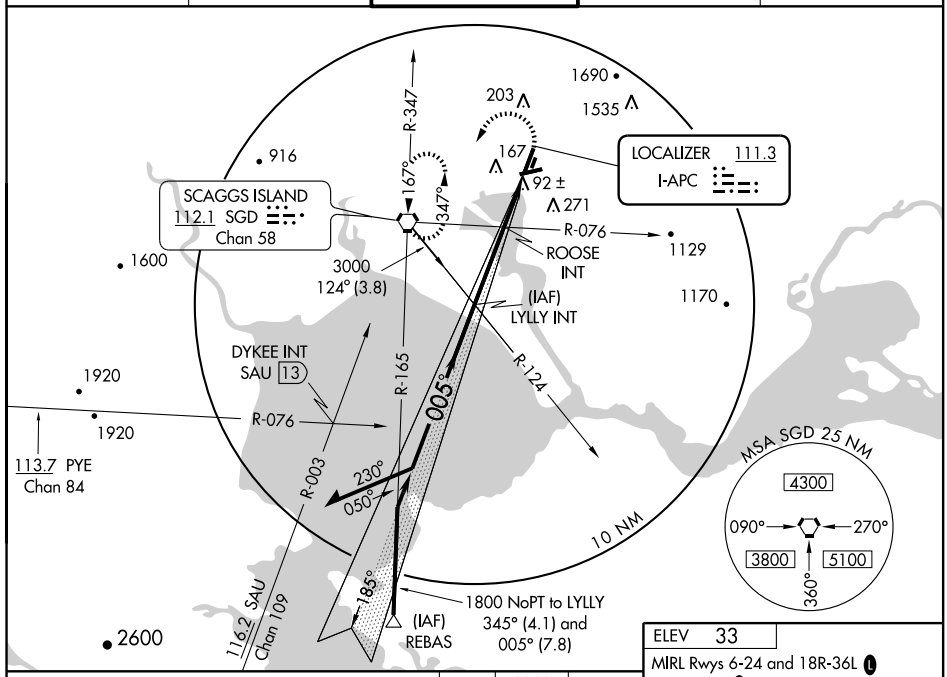
LOC RWY 36L
NAPA COUNTY (APC)

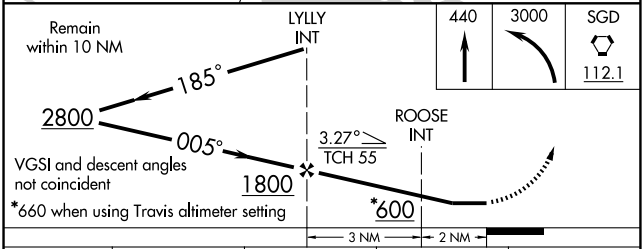
When control tower closed, use Travis AFB altimeter setting and increase all MDAs 60 feet.
Circling not authorized northeast of Rwys 18R and 24.
††Inoperative table does not apply to MALS for Cat.D.
†Inoperative table does not apply to MALS for Cat. C & D.

MALS

MISSED APPROACH: Climb to 440, then climbing left turn to 3000 direct SGD VORTAC and hold.

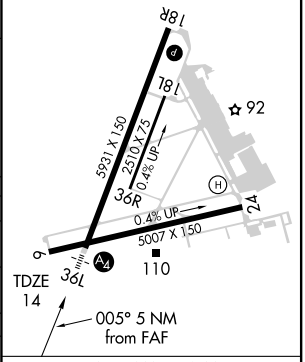
ATIS	OAKLAND CENTER	NAPA TOWER★	GND CON	CLNC DEL
124.05	127.8 353.5	118.7 (CTAF) L 257.8	121.7	127.85





CATEGORY	A	B	C	D
S-LOC 36L†	600-¾ 586 (600-¾)		600-1½ 586 (600-1½)	600-1¾ 586 (600-1¾)
CIRCLING	600-1 567 (600-1)	620-1 587 (600-1)	620-1½ 587 (600-1½)	1140-3 1107 (1200-3)
ROOSE MINIMUMS				
S-LOC 36L††	360-¾ 346 (400-¾)			360-1¼ 346 (400-1¼)
CIRCLING	600-1 567 (600-1)	620-1 587 (600-1)	620-1½ 587 (600-1½)	1140-3 1107 (1200-3)

ELEV 33
MIRL Rwys 6-24 and 18R-36L L
REIL Rwy 6 L



FAF to MAP 5 NM

Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

SW-2, 14 JAN 2010 to 11 FEB 2010

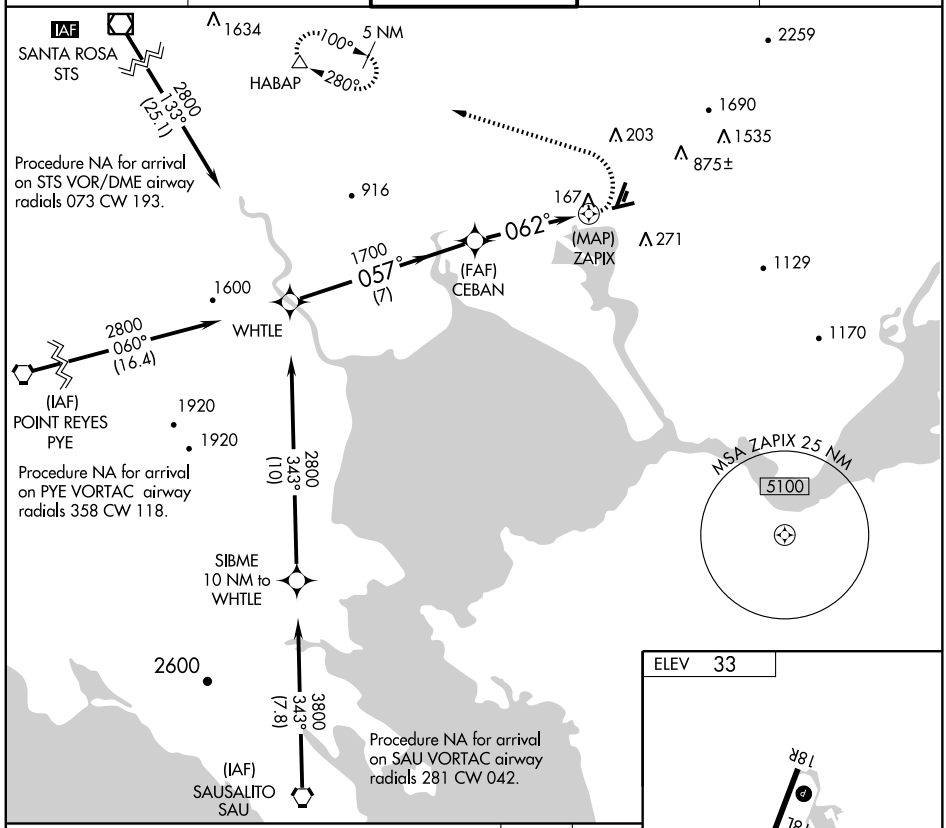
APP CRS	Rwy Idg	5007
062°	TDZE	19
	Apt Elev	33

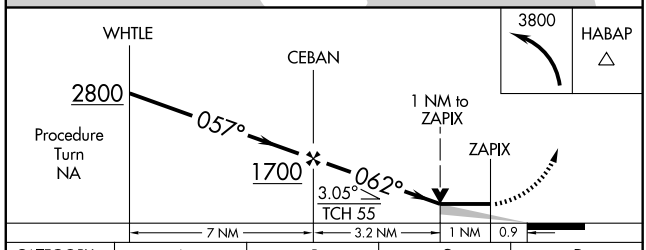
RNAV (GPS) RWY 6
NAPA COUNTY (APC)

Circling NA northeast of Rwys 18R and 24.
IAF ARM APPROACH MODE PRIOR TO IAF.
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

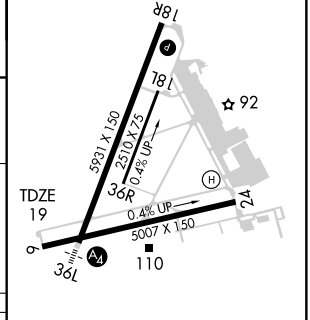
MISSED APPROACH: Climbing left turn to 3800 direct HABAP and hold.

ATIS	OAKLAND CENTER	NAPA TOWER★	GND CON	CLNC DEL
124.05	127.8 353.5	118.7 (CTAF) L 257.8	121.7	127.85





CATEGORY	A	B	C	D
LNAV MDA	660-1	641 (700-1)	660-1¾ 641 (700-1¾)	660-2 641 (700-2)
CIRCLING	660-1	627 (700-1)	720-2 687 (700-2)	1240-3 1207 (1300-3)



REIL Rwy 6 L
MIRL Rwys 6-24 and 18R-36L L

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 56613 W36A	APP CRS 006°	Rwy Idg 5931 TDZE 17 Apt Elev 35

RNAV (GPS) Y RWY 36L

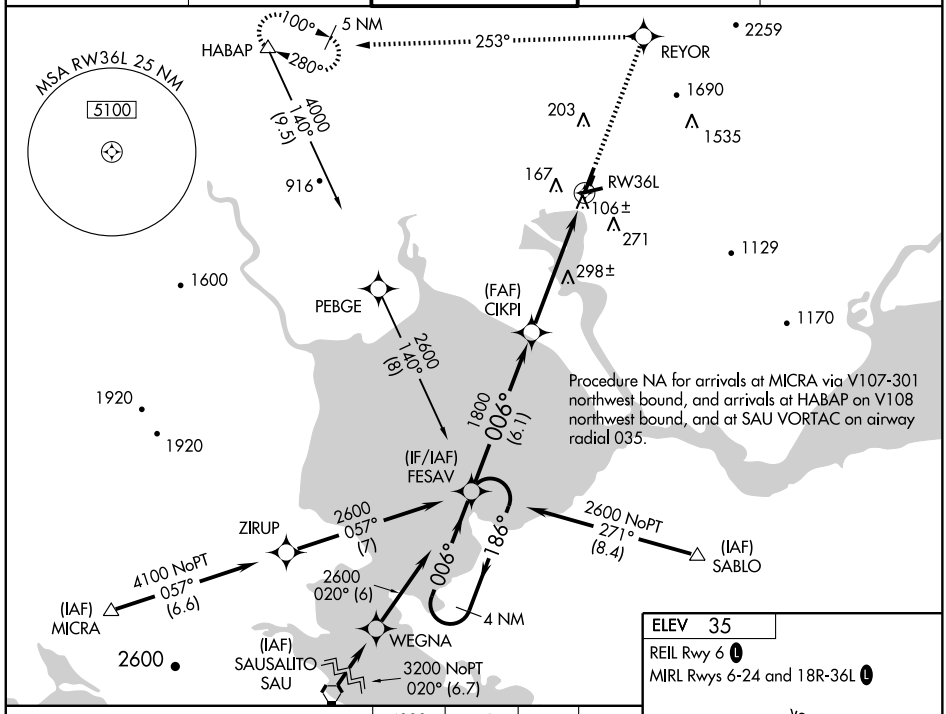
NAPA COUNTY (APC)

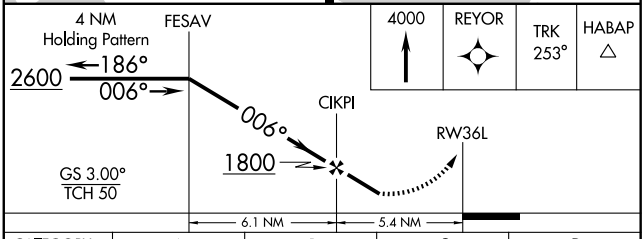
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Buchanan Field altimeter setting and increase all DA 41 feet, all MDA 60 feet. Baro-VNAV NA when using Buchanan Field altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -30°C (-22°F) or above 49°C (120°F).

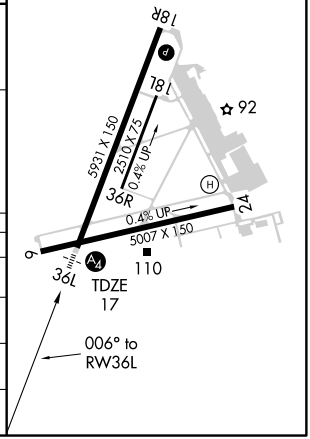
MALS

MISSED APPROACH: Climb to 4000 direct REYOR and via track 253° to HABAP and hold.

ATIS	OAKLAND CENTER	NAPA TOWER ★	GND CON	CLNC DEL
124.05	127.8 353.5	118.7 (CTAF) L 257.8	121.7	127.85







CATEGORY	A	B	C	D
LPV DA	1202-5 1185 (1200-5)			
LNAV/VNAV DA	1419-5 1402 (1400-5)			
LNAV MDA	1620-1¼ 1603 (1600-1¼)	1620-1½ 1603 (1600-1½)	1620-3 1603 (1600-3)	
CIRCLING	1620-1¼ 1585 (1600-1¼)	1620-1½ 1585 (1600-1½)	1620-3 1585 (1600-3)	

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 40313 W36B	APP CRS 006°	Rwy Idg 5931 / TDZE 17 / Apt Elev 35

RNAV (GPS) Z RWY 36L

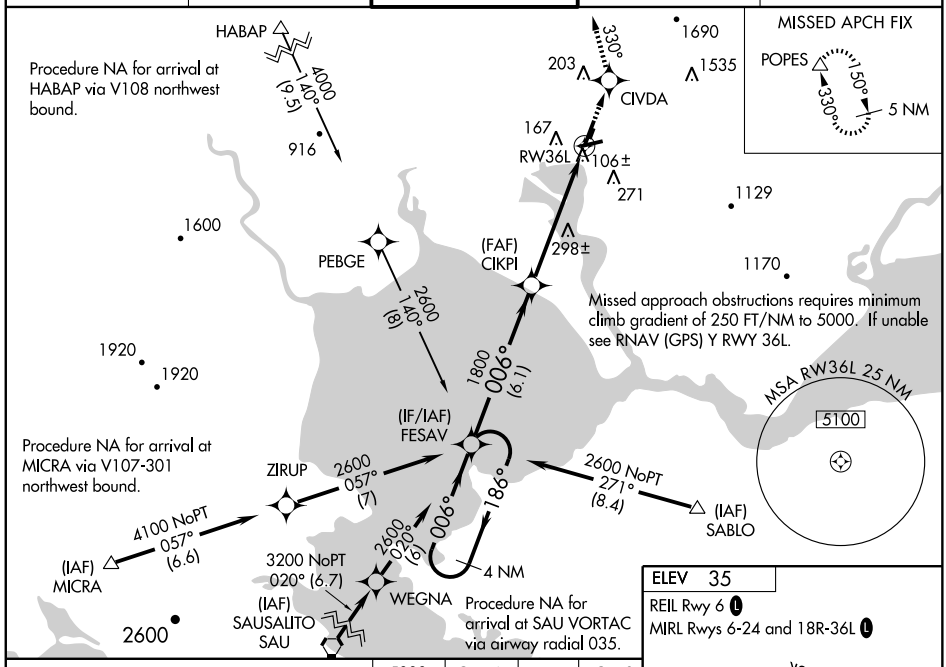
NAPA COUNTY (APC)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 49°C (120°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Buchanan Field altimeter setting and increase all DA 41 feet, all MDA 60 feet, and increase visibility LPV all Cats. ¼ mile, LNAV/VNAV all Cats. 1 mile, and LNAV Cats. C/D ¼ mile. VDP NA when using Buchanan Field altimeter setting. Baro-VNAV NA when using Buchanan Field altimeter setting.

MALS

MISSED APPROACH: Climb to 5000 direct CIVDA and via track 330° to POPES and hold.

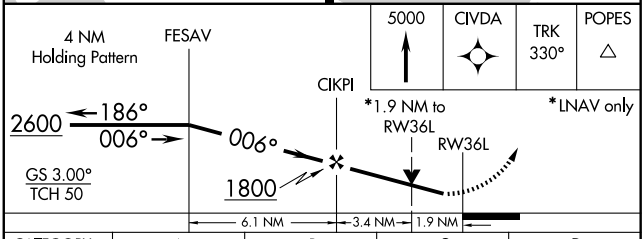
ATIS	OAKLAND CENTER	NAPA TOWER ★	GND CON	CLNC DEL
124.05	127.8 353.5	118.7 (CTAF) L 257.8	121.7	127.85

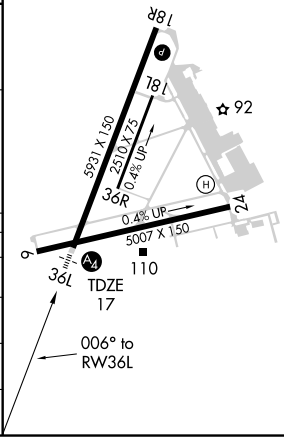


ELEV 35

REIL Rwy 6 L

MIRL Rwys 6-24 and 18R-36L L





CATEGORY	A	B	C	D
LPV DA		300-1 283 (300-1)		
LNAV/VNAV DA		856-3 839 (900-3)		
LNAV MDA	680-1 663 (700-1)		680-1¾ 663 (700-1¾)	680-2 663 (700-2)
CIRCLING	700-1 665 (700-1)		920-2¾ 885 (900-2¾)	1180-3 1145 (1200-3)

SW-2, 14 JAN 2010 to 11 FEB 2010

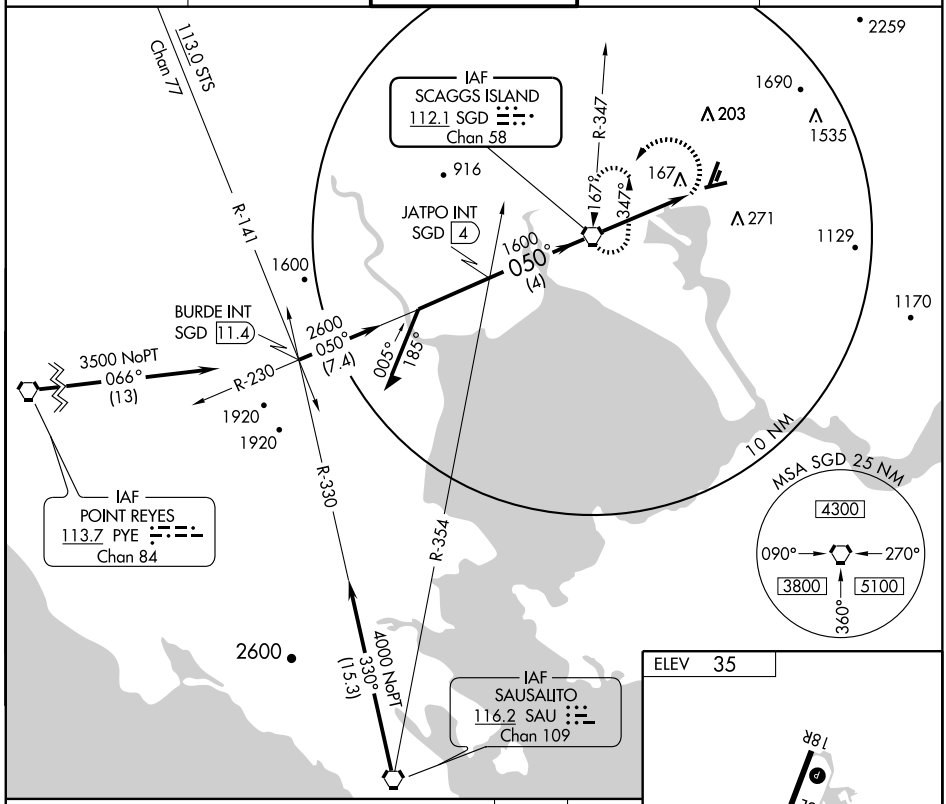
VORTAC SGD 112.1 Chan 58	APP CRS 050°	Rwy Idg 5007 TDZE 21 Apt Elev 35

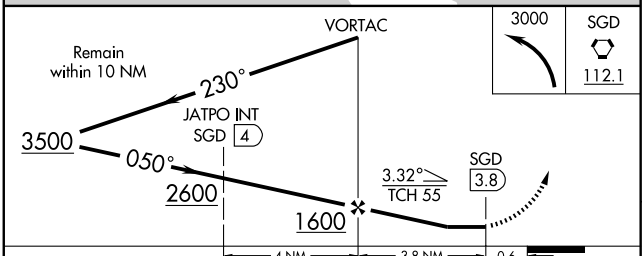
VOR RWY 6
NAPA COUNTY (APC)

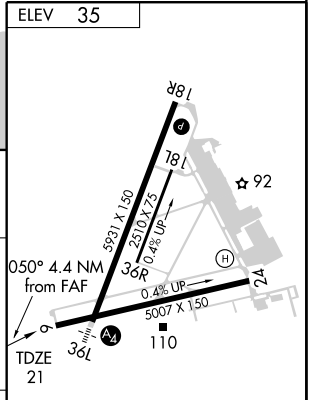
Circling NA northeast of Rwys 18R and 24.

MISSED APPROACH: Climbing left turn to 3000 direct SGD VORTAC and hold.

ATIS	OAKLAND CENTER	NAPA TOWER★	GND CON	CLNC DEL
124.05	127.8 353.5	118.7 (CTAF) L 257.8	121.7	127.85







CATEGORY	A	B	C	D
S-6	440-1 419 (500-1)		440-1¼ 419 (500-1¼)	
CIRCLING	600-1 565 (600-1)	620-1 585 (600-1)	720-2 685 (700-2)	1240-3 1205 (1300-3)

REIL Rwy 6 L
MIRL Rwys 6-24 and 18R-36L L

FAF to MAP 3.8 NM

Knots	60	90	120	150	180
Min:Sec	3:48	2:32	1:54	1:31	1:16

SW-2, 14 JAN 2010 to 11 FEB 2010

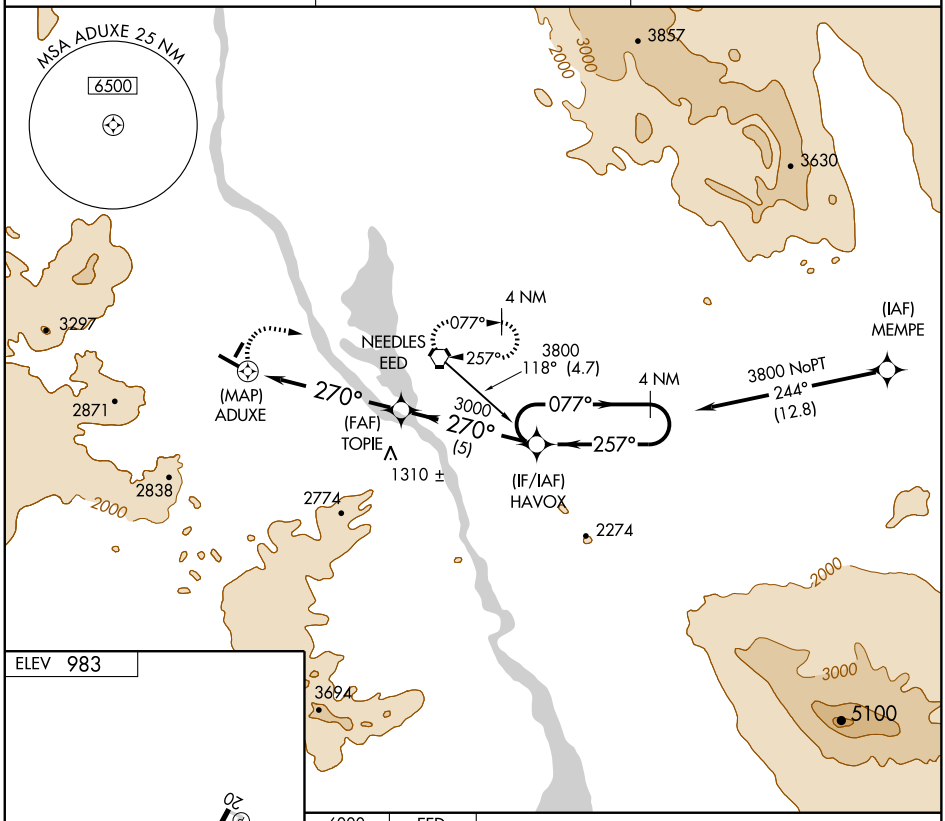
APP CRS	Rwy Idg	5005
270°	TDZE	956
	Apt Elev	983

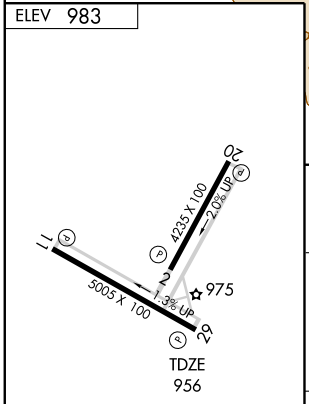
RNAV (GPS) RWY 29
NEEDLES (EED)

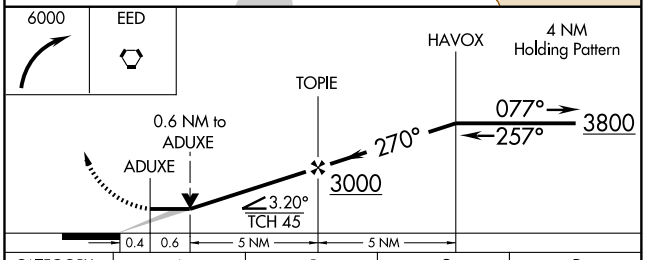
NA — Straight-in minimums not authorized at night. GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climbing right turn to 6000 direct to EED VORTAC and hold.

ASOS	LOS ANGELES CENTER	UNICOM
128.325	134.65 360.65	123.0 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1300-1 344 (400-1)			1300-1¼ 344 (400-1¼)
CIRCLING	1560-1 577 (600-1)	1600-1 617 (700-1)	1620-1¾ 637 (700-1¾)	1780-2½ 797 (800-2½)

MIRL Rwys 2-20 and 11-29 L
REIL Rwys 11and 29 L

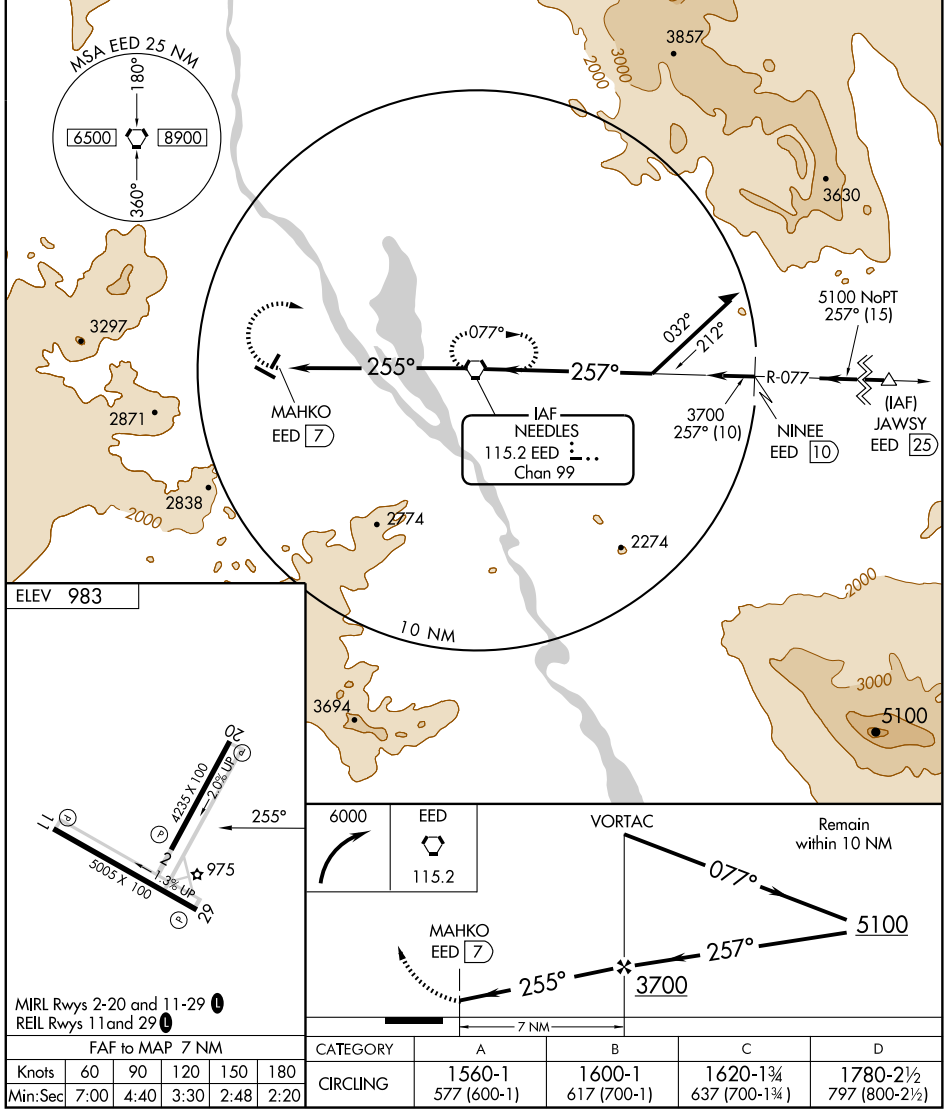
SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC EED	APP CRS	Rwy Idg	N/A
115.2	255°	TDZE	N/A
Chan 99		Apt Elev	983

VOR-A
NEEDLES (EED)

MISSED APPROACH: Climbing right turn to 6000 direct EED VORTAC and hold.

ASOS	LOS ANGELES CENTER	UNICOM
128.325	134.65 360.65	123.0 (CTAF) L



FAF to MAP 7 NM					
Knots	60	90	120	150	180
Min:Sec	7:00	4:40	3:30	2:48	2:20

CATEGORY	A	B	C	D
CIRCLING	1560-1 577 (600-1)	1600-1 617 (700-1)	1620-1¾ 637 (700-1¾)	1780-2½ 797 (800-2½)

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3300
147°	TDZE	2
	Apt Elev	2

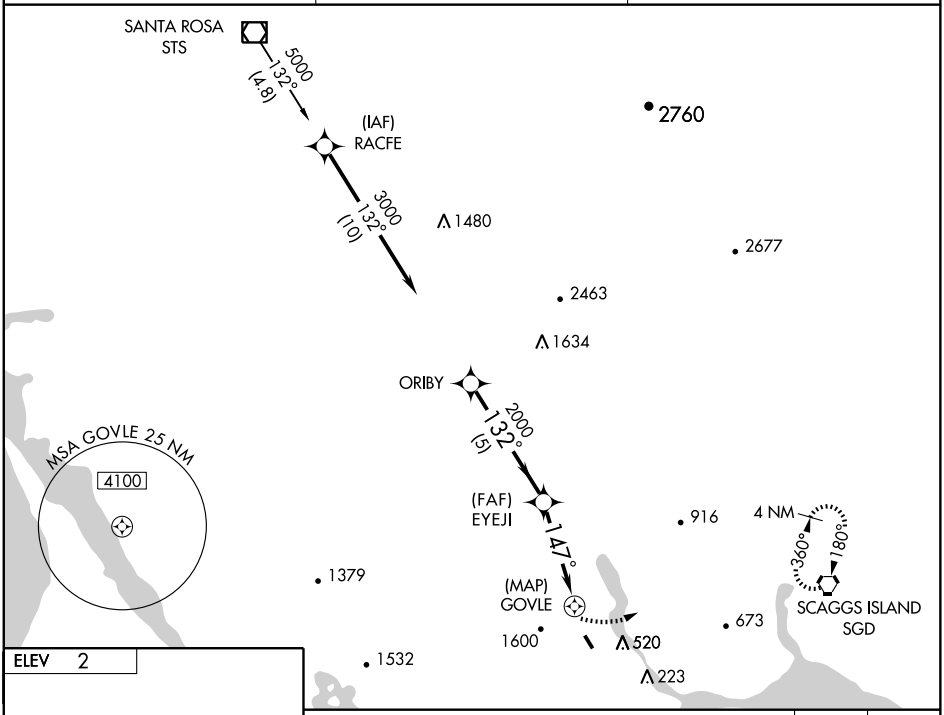
GPS RWY 13

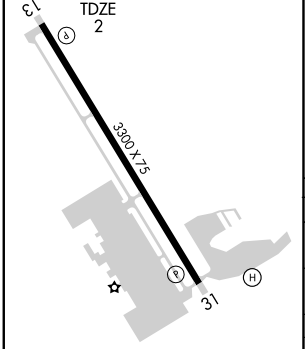
NOVATO/GNOSS FIELD (DVO)

Circling NA west of Rwy 13-31. When local altimeter not received, use Napa altimeter setting and increase all MDAs 40 feet. If neither is received procedure is NA.

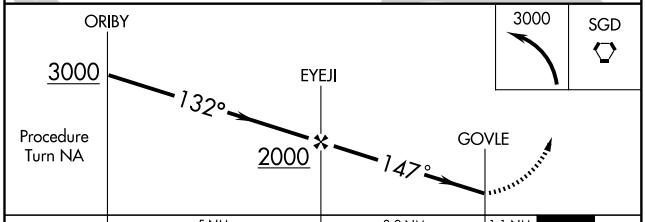
MISSED APPROACH: Climbing left turn to 3000 direct SGD VORTAC and hold.

AWOS	OAKLAND CENTER	UNICOM
120.675	127.8 353.5	123.075 (CTAF)





MIRL Rwy 13-31



CATEGORY	A	B	C	D
S-13	1000-1¼ 998 (1000-1¼)	1000-1½ 998 (1000-1½)	NA	
CIRCLING	1000-1¼ 998 (1000-1¼)	1000-1½ 998 (1000-1½)	NA	
NAPA ALTIMETER SETTING MINIMUMS				
S-13	1040-1¼ 1038 (1100-1¼)	1040-1½ 1038 (1100-1½)	NA	
CIRCLING	1040-1¼ 1038 (1100-1¼)	1040-1½ 1038 (1100-1½)	NA	

SW-2, 14 JAN 2010 to 11 FEB 2010

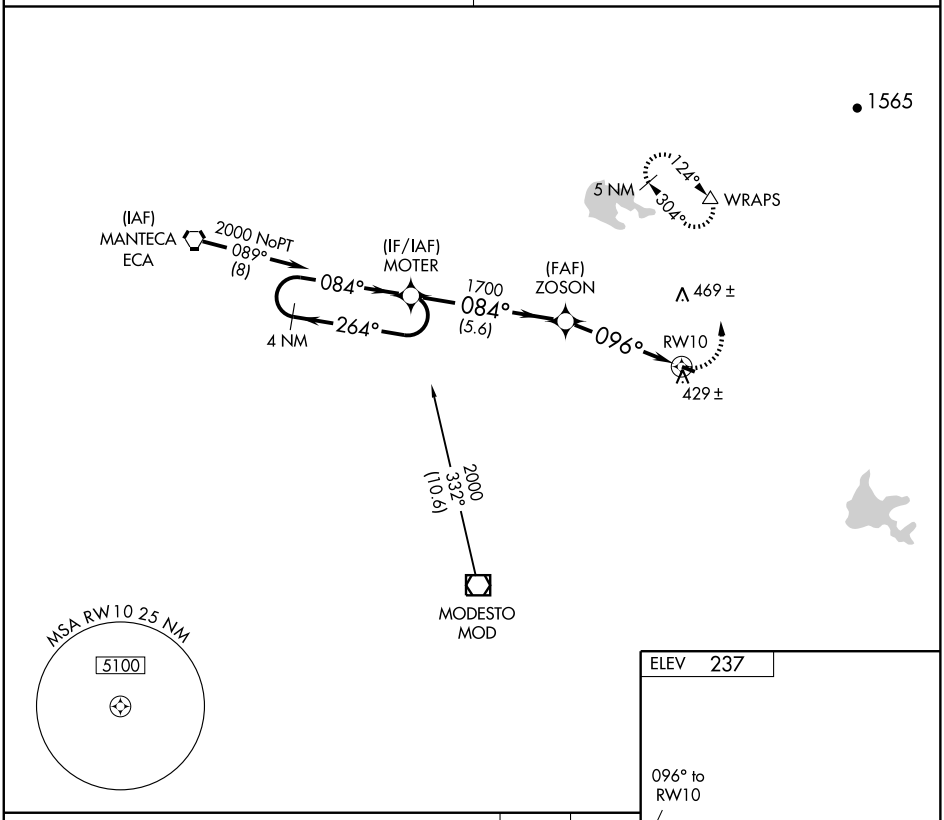
APP CRS	Rwy Idg	3013
096°	TDZE	237
	Apt Elev	237

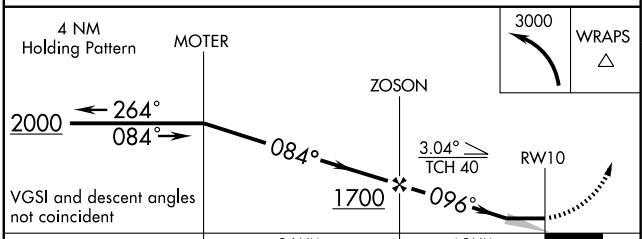
RNAV (GPS) RWY 10
OAKDALE (O27)

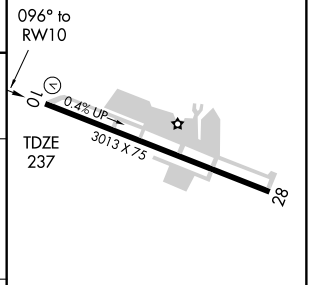
DME/DME RNP-0.3 NA.
Use Stockton altimeter setting, when not received, procedure NA.
Circling to Rwy 28 NA at night.

MISSED APPROACH: Climbing left turn to 3000 direct WRAPS and hold.

NORCAL APP CON	UNICOM
125.1 363.2	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	760-1	523 (600-1)	NA	
CIRCLING	860-1	623 (700-1)	NA	

MIRL Rwy 10-28 L

SW-2, 14 JAN 2010 to 11 FEB 2010

OAKDALE, CALIFORNIA AL-6135 (FAA)

APP CRS	Rwy Idg	3013
276°	TDZE	237
	Apt Elev	237

RNAV (GPS) RWY 28

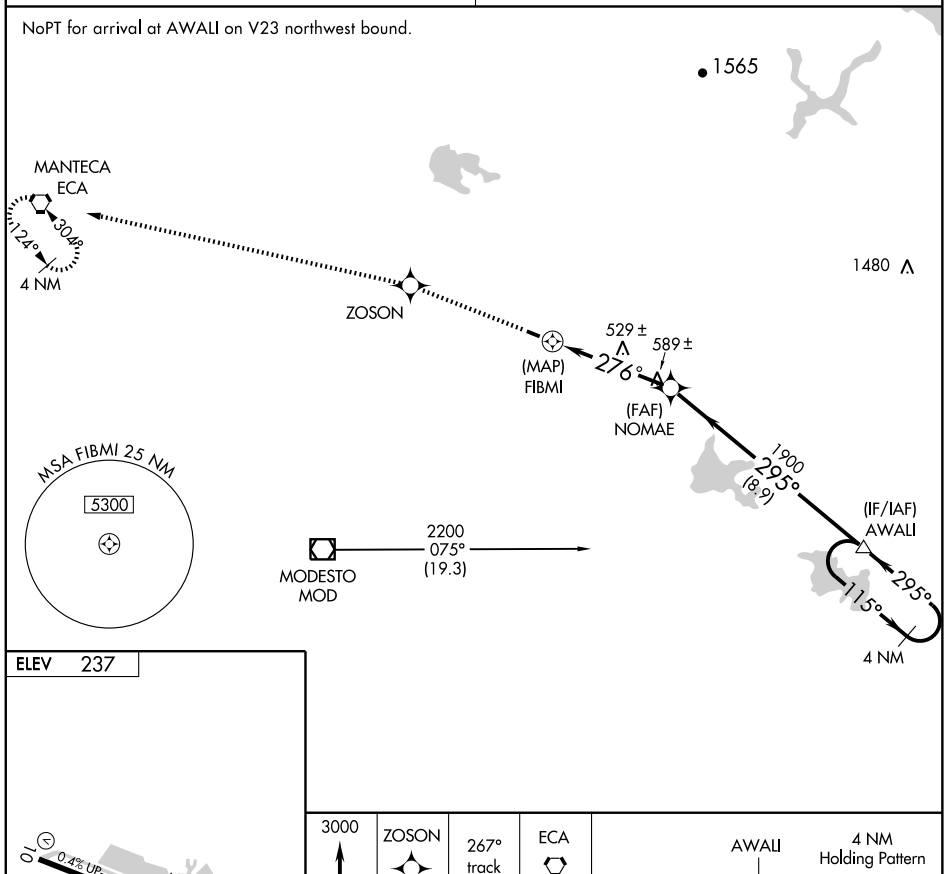
OAKDALE (O27)

DME/DME RNP-0.3 NA.
NA Use Stockton altimeter setting, when not received, procedure NA.
Straight-In/Circling to Rwy 28 NA at night.

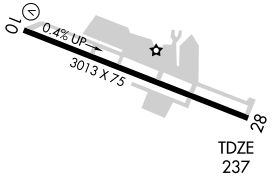
MISSED APPROACH: Climb to 3000 direct ZOSON and via 267° track to ECA VORTAC and hold.

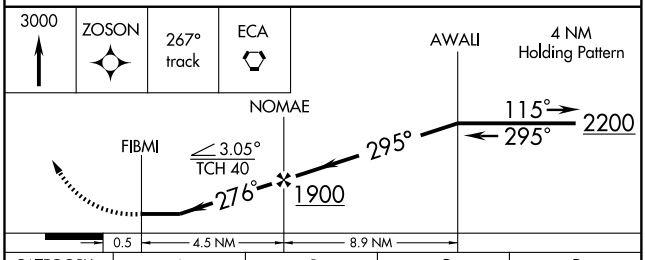
NORCAL APP CON	UNICOM
125.1 363.2	122.8 (CTAF) L

NoPT for arrival at AWALI on V23 northwest bound.



ELEV 237





CATEGORY	A	B	C	D
LNAV MDA	860-1 623 (700-1)		NA	
CIRCLING	860-1 623 (700-1)		NA	

MIRL Rwy 10-28 L

SW-2, 14 JAN 2010 to 11 FEB 2010

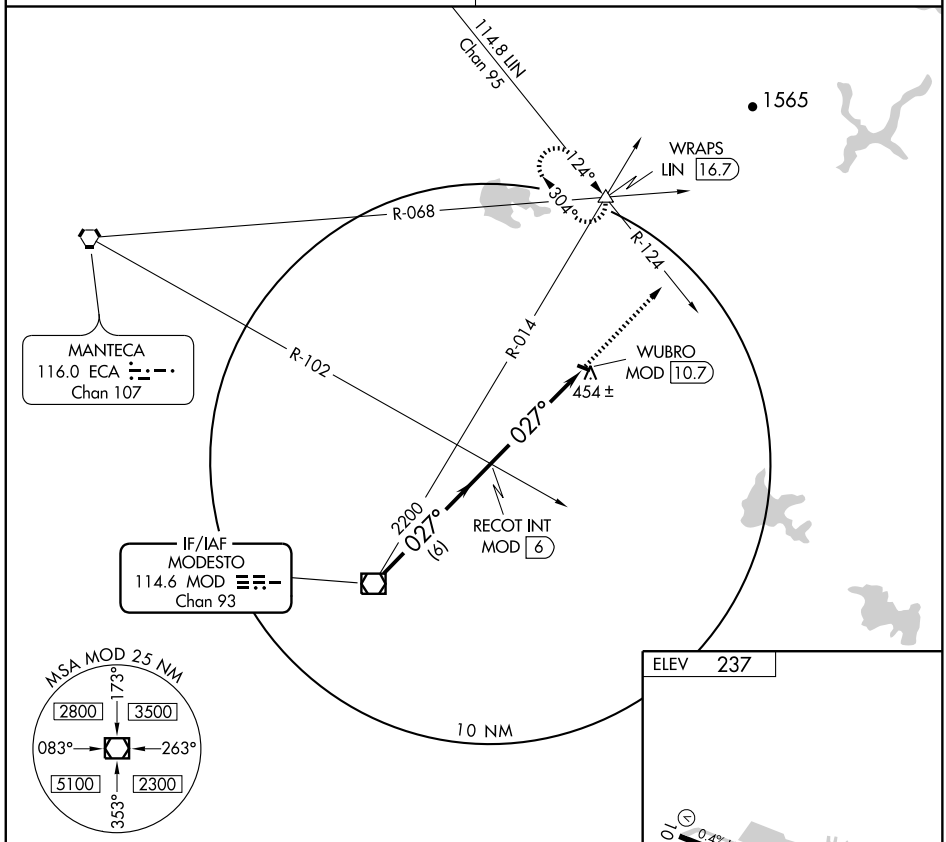
VOR/DME MOD	APP CRS	Rwy Idg	N/A
114.6	027°	TDZE	N/A
Chan 93		Apt Elev	237

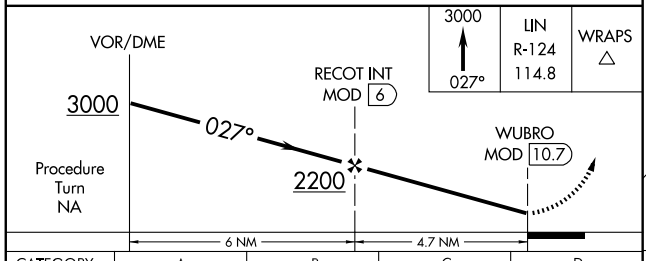
VOR-A
OAKDALE (O27)

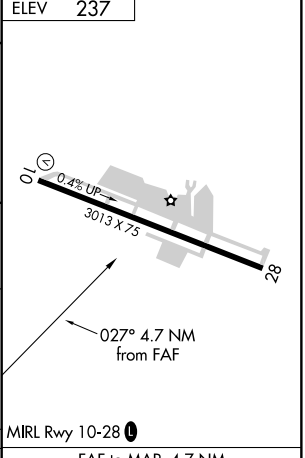
▼ NA — Use Stockton altimeter setting, when not received, procedure NA. Circling to Rwy 28 NA at night.

MISSED APPROCAH: Climb to 3000 via heading 027° and LIN R-124 to WRAPS Int/LIN 16.7 DME and hold, continue climb-in-hold to 3000.

NORCAL APP CON	UNICOM
125.1 363.2	122.8 (CTAF) L







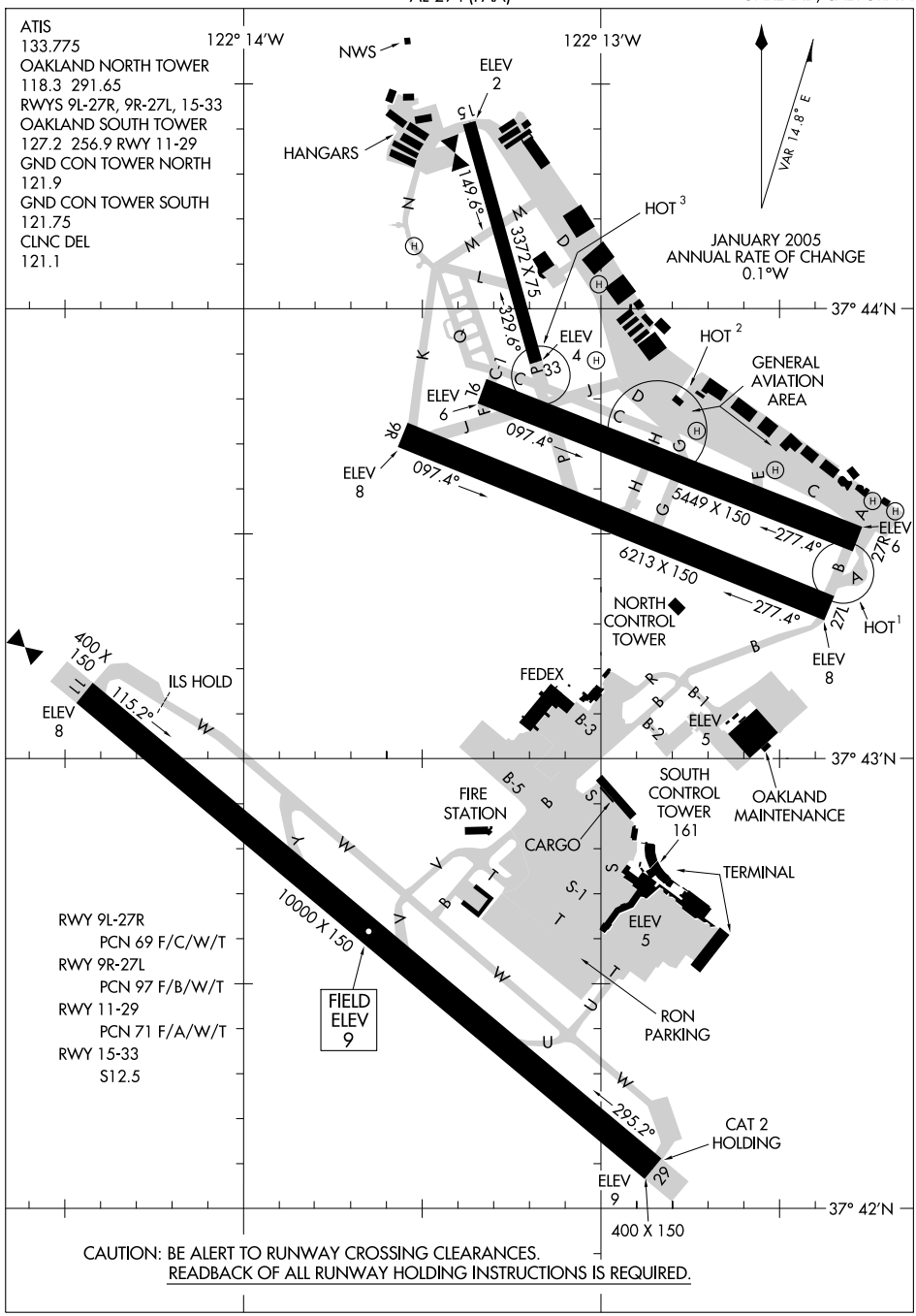
CATEGORY	A	B	C	D
CIRCLING	860-1 623 (700-1)		NA	

FAF to MAP 4.7 NM					
Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

SW-2, 14 JAN 2010 to 11 FEB 2010

AIRPORT DIAGRAM

OAKLAND/METROPOLITAN OAKLAND INTL (OAK)
AL-294 (FAA)
OAKLAND, CALIFORNIA



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

SW-2, 14 JAN 2010 to 11 FEB 2010

(COAST5.MCKEY) 09239

COAST FIVE DEPARTURE

OAKLAND/METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA
SL-294 (FAA)

ATIS 133.775
CLNC DEL
121.1
GND CON
NORTH 121.9
SOUTH 121.75
OAKLAND TOWER
118.3 291.65 (Rwys 27L/R)
127.2 256.9 (Rwy 29)
NORCAL DEP CON
135.1 307.2

POINT REYES
113.7 PYE
Chan 84

R-151
200°
3000
4 NM
2000
151°

OAKLAND
116.8 OAK
Chan 115

SEGUL
N36°57.78′
W122°34.33′
16000

68

SALINAS
117.3 SNS
Chan 120

R-274
151°
(33)
101
X
R-233

CYPRS
N36°25.34′
W122°25.93′
FL 220

108
FL 220
115°
(86)

BIG SUR
114.0 BSR
Chan 87

R-131

MORRO BAY
112.4 MQO
Chan 71
N35°15.14′
W120°45.58′

MCKEY
N35°29.53′
W121°05.75′

(22)
FL 220
115°
R-295

FELLOWS
117.5 FLW
Chan 122
N35°05.58′-W119°51.93′
L-3-7, H-4

FL 220
086°
(45)
R-266

FL 220
131°
(88)

V27

FL220
126°
(54)

FL 220
116°
(66)

SAN MARCUS
114.9 RZS
Chan 96
N34°30.57′-W119°46.26′
L-3-4-7, H-4

R-307
R-299

137

DAISY
34°15.23′
W120°08.52′

101

GAVIOTA
113.8 GVO
Chan 85
N34°31.88′-W120°05.47′
L-3-4-7, H-4

11000
107°
(76)

BENET
N33°35.70′
W118°50.60′

SANTA CATALINA
111.4 SXC
Chan 51
N33°22.50′-W118°25.20′
L-3-4, H-4

(25)
R-287

NOTE: RADAR required.
NOTE: DME required.
NOTE: For obstacle clearance the following minimum climb rates apply:
Rwys 27L/R: 375′ per NM to 2000′.
Rwy 29: 230′ per NM to 2000′.

NOTE: Chart not to scale.

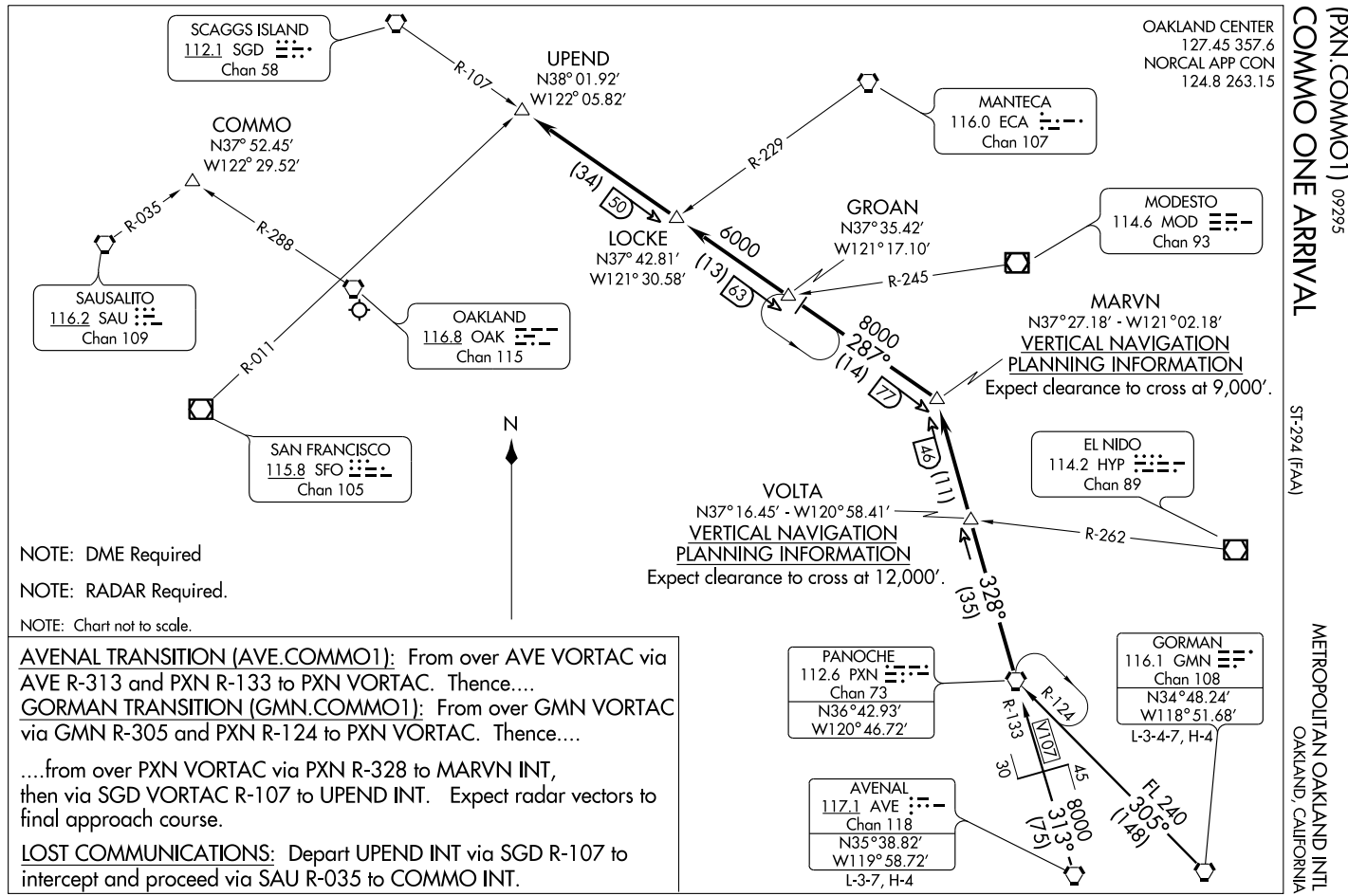
(NARRATIVE ON FOLLOWING PAGE)

SW-2, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 27L/R and 29: Maintain runway heading for vectors to PYE R-151. Cross 4 miles northwest of OAK VORTAC at or below 2000'. Intercept and proceed via the PYE R-151 to SEGUL INT. Cross SEGUL INT at or above 16000'. Proceed via the PYE R-151 to CYPRS INT; cross CYPRS INT at or above FL 220. Then via the MQO R-295 to MCKEY INT, then via (transition) or (assigned route). Expect further clearance to filed altitude 10 minutes after departure.
LOST COMMUNICATIONS: TAKE-OFF RUNWAYS 27L/R AND 29: After reaching 3000', turn left heading 200° , intercept and proceed via PYE R-151, then resume own navigation.
FELLOWS TRANSITION (COAST5.FLW): From over MCKEY INT via MQO R-295 to MQO VORTAC; then via MQO R-086 and FLW R-266 to FLW VORTAC.
GAVIOTA TRANSITION (COAST5.GVO): from over MCKEY INT via MQO R-295 to MQO VORTAC; then via MQO R-126 and GVO R-307 to GVO VORTAC.
SAN MARCUS TRANSITION (COAST5.RZS): From over MCKEY INT via MQO R-295 to MQO VORTAC; then via MQO R-116 and RZS R-299 to RZS VORTAC.
SANTA CATALINA TRANSITION (COAST5.SXC): From over MCKEY INT via BSR R-131 and SXC R-287 to SXC VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010



(PXN.COMMO1) 09295

COMMO ONE ARRIVAL

ST-294 (FAA)

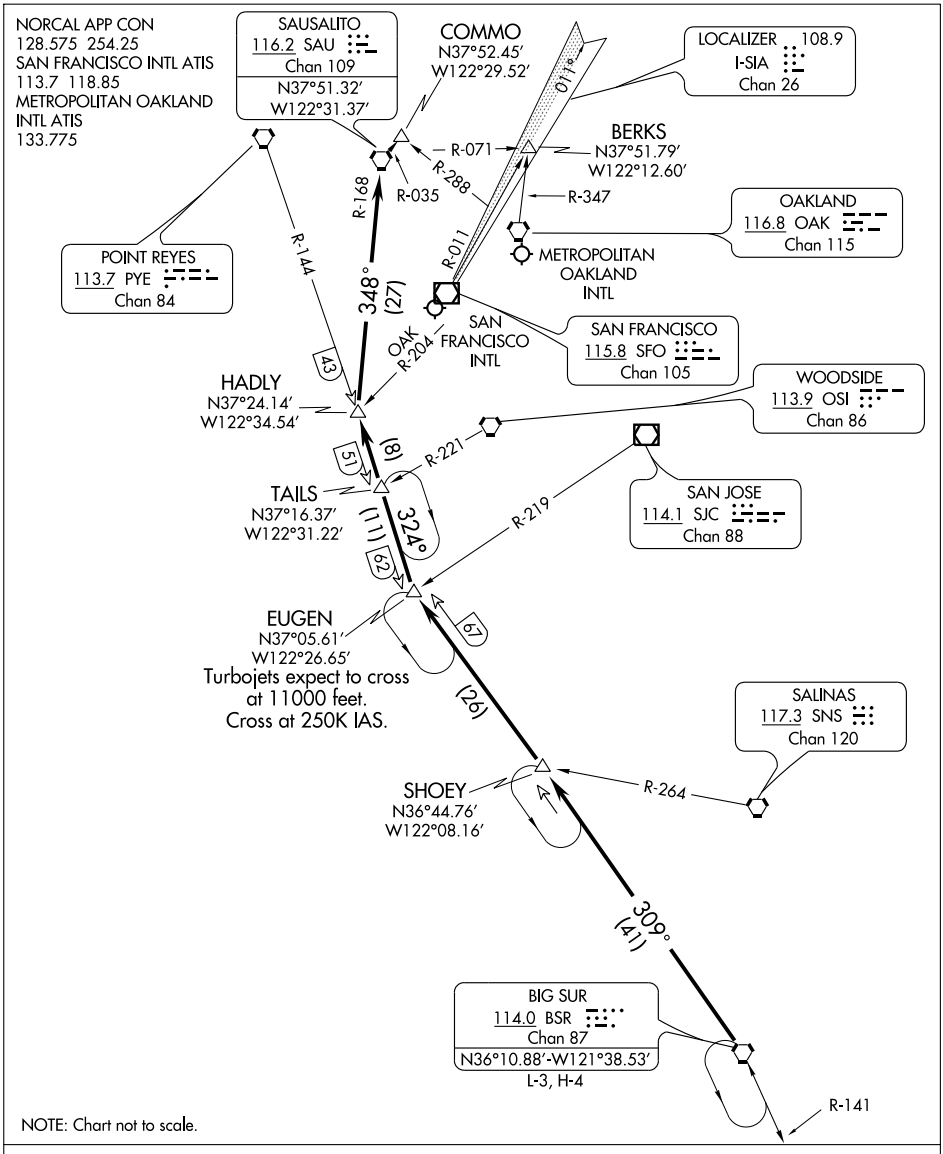
METROPOLITAN OAKLAND INTL
OAKLAND, CALIFORNIA

(BSR.HADLY2) 09351

HADLY TWO ARRIVAL

ST-375 (FAA)

SAN FRANCISCO, CALIFORNIA



From over BSR VORTAC via BSR R-309 to EUGEN INT, then via PYE R-144 to HADLY INT, then via direct SAU VORTAC. Expect vectors to final approach course. Expect clearance to cross EUGEN INT at 11000′ and at 250K IAS.

LOST COMMUNICATIONS

San Francisco Intl: Depart SAU VORTAC via SAU R-071 to BERKS INT.

Metropolitan Oakland Intl: Depart SAU VORTAC via SAU R-035 to COMMO INT.

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC I-OAK	APP CRS		27R	27L
109.9	276°	Rwy Idg	5449	6213
		TDZE	7	9
		Apt Elev	9	9

ILS or LOC/DME RWY 27R

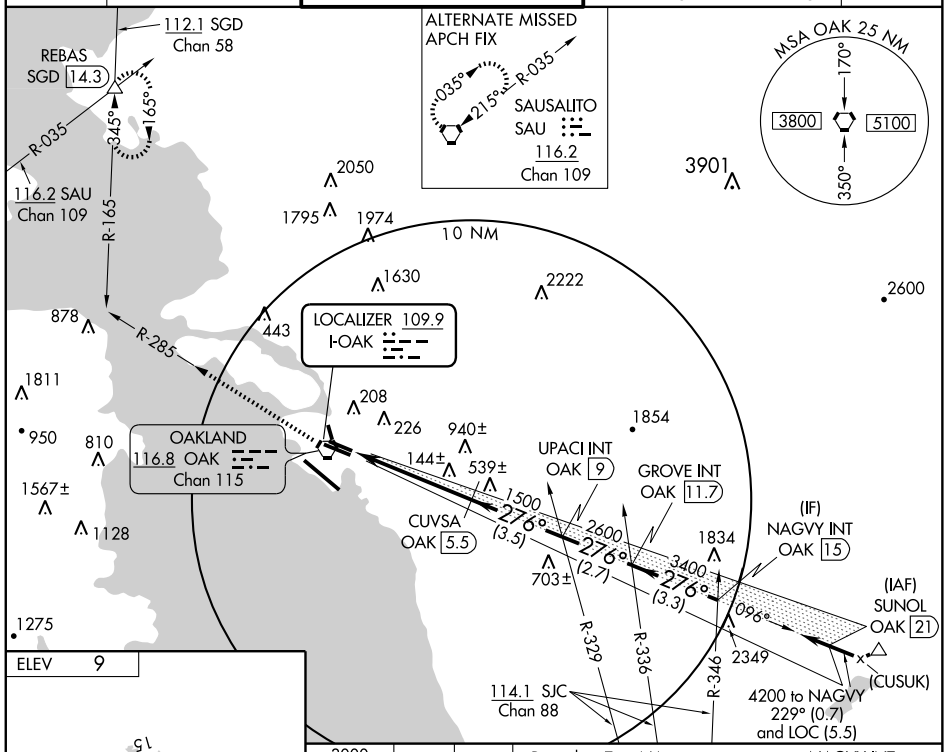
OAKLAND/ METROPOLITAN OAKLAND INTL (OAK)

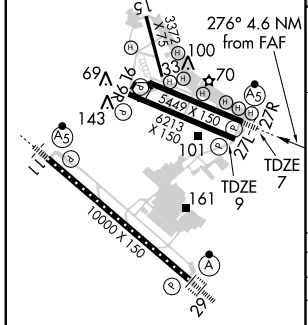
*RVR 1800 authorized with the use of FD or AP or HUD to DA.

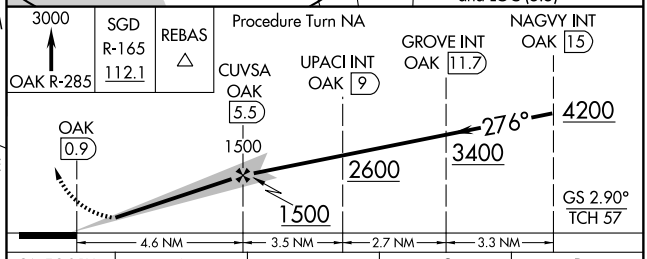
MALSR Rwy 27R (A5)

MISSED APPROACH: Climb to 3000 via OAK R-285 to intercept SGD R-165 to REBAS INT/SGD 14.3 and hold.

ATIS	NORCAL APP CON	OAKLAND TOWER (Rwys 9-27, 15-33)	OAKLAND TOWER (Rwy 11-29)	GND CON (Rwys 9-27, 15-33)	GND CON (Rwy 11-29)	CLNC DEL
133.775	125.35 310.8 354.1	118.3	291.65 127.2 256.9	121.9	121.75	121.1







CATEGORY	A	B	C	D
S-ILS 27R	*207/24 200 (200-½)			
S-LOC 27R	400/24 393 (400-½)			400/40 393 (400-¾)
SIDESTEP RWY 27L	420/50 411 (500-1)		420-1½ 411 (500-1½)	420-2 411 (500-2)
CIRCLING	520-1 511 (600-1)	540-1 531 (600-1)	540-1½ 531 (600-1½)	560-2 551 (600-2)

TDZ/CL Rwy 29
MIRL Rwy 15-33
REIL Rwy 9R
HIRL Rwys 11-29, 9L-27R, and 9R-27L

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC I-AAZ	APP CRS	Rwy Idg	10000
111.9	114°	TDZE	9
		Apt Elev	9

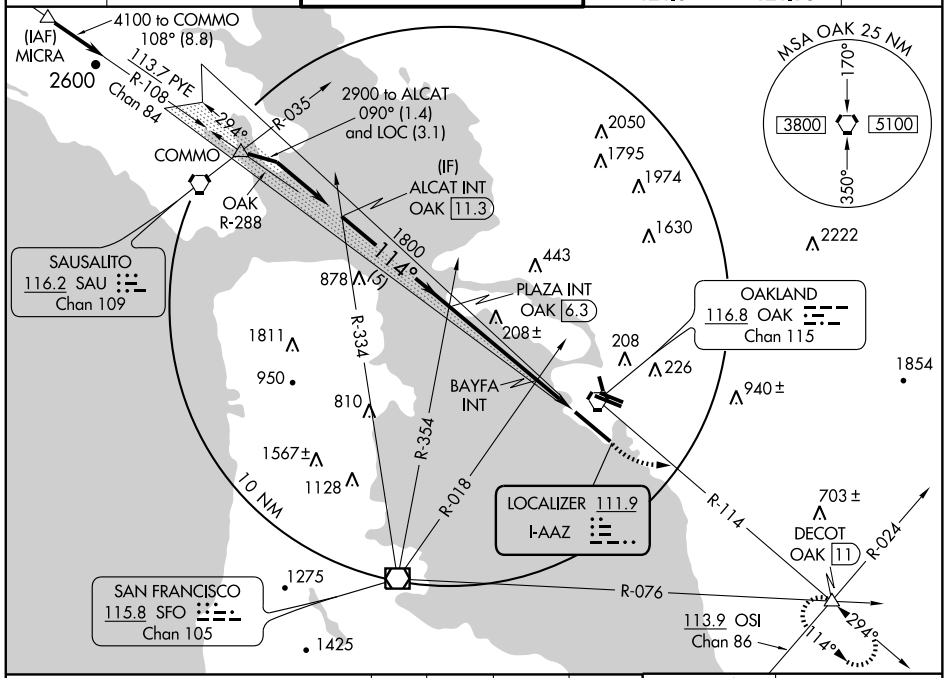
ILS or LOC RWY 11

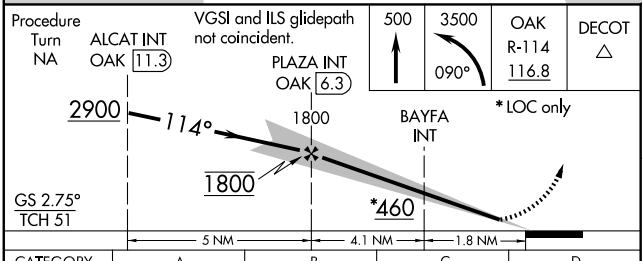
OAKLAND/METROPOLITAN OAKLAND INTL (OAK)

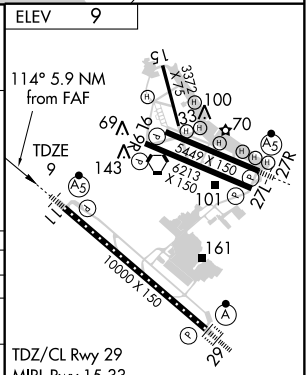
MALSR

MISSED APPROACH: Climb to 500 then climbing left turn to 3500 via heading 090° and OAK VORTAC R-114 to DECOT INT/OAK 11 DME and hold.

ATIS	NORCAL APP CON	OAKLAND TOWER (Rwys 9-27, 15-33)	OAKLAND TOWER (Rwy 11-29)	GND CON (Rwys 9-27, 15-33)	GND CON (Rwy 11-29)	CLNC DEL
133.775	125.35 310.8 354.1	118.3	291.65 127.2 256.9	121.9	121.75	121.1







CATEGORY	A	B	C	D
S-ILS 11	209/24 200 (200-½)			
S-LOC 11	460/24 451 (500-½)		460/40 451 (500-¾)	460/50 451 (500-1)
CIRCLING	520-1 511 (600-1)	540-1 531 (600-1)	540-1½ 531 (600-1½)	560-2 551 (600-2)
BAYFA FIX MINIMUMS				
S-LOC 11	360/24 351 (400-½)			360/40 351 (400-¾)
CIRCLING	520-1 511 (600-1)	540-1 531 (600-1)	540-1½ 531 (600-1½)	560-2 551 (600-2)

TDZ/CL Rwy 29
MIRL Rwy 15-33
REIL Rwy 9R
HIRL Rwys 11-29, 9L-27R and 9R-27L

FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC I-INB	APP CRS	Rwy Idg	10000
108.7	294°	TDZE	9
		Apt Elev	9

ILS or LOC RWY 29

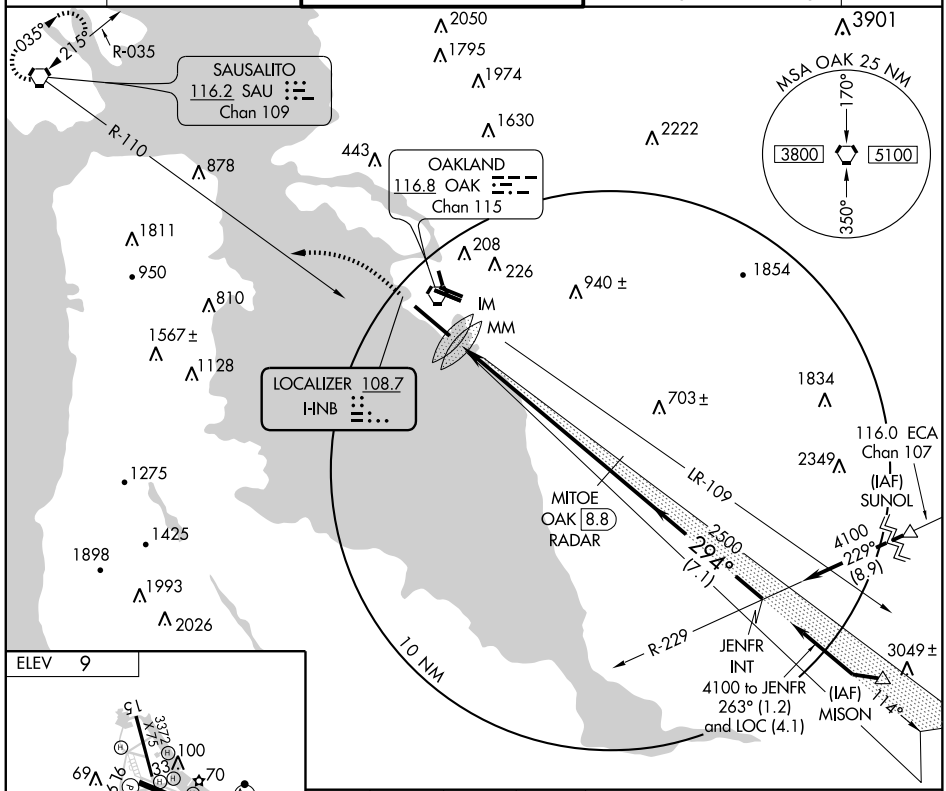
OAKLAND/ METROPOLITAN OAKLAND INTL (OAK)

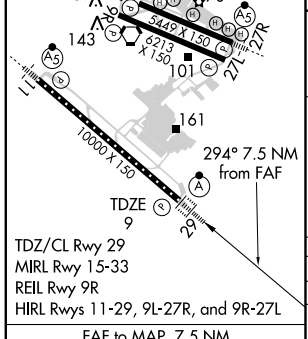
*DME or RADAR required for S-LOC 29.

ALSF-2

MISSED APPROACH: Climb to 600 then climbing left turn to 4000 via heading 260° and SAU R-110 to SAU VORTAC and hold.

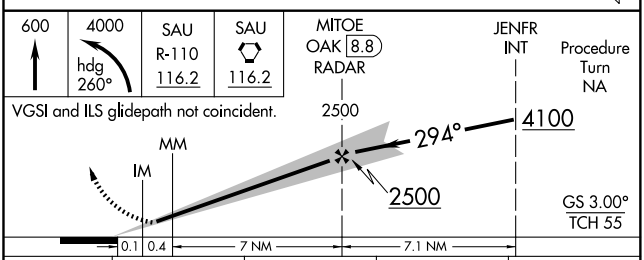
ATIS	NORCAL APP CON	OAKLAND TOWER (Rwys 9-27, 15-33)	OAKLAND TOWER (Rwy 11-29)	GND CON (Rwys 9-27, 15-33)	GND CON (Rwy 11-29)	CLNC DEL
133.775	125.35 310.8 354.1	118.3	291.65 127.2 256.9	121.9	121.75	121.1





TDZ/CL Rwy 29
MIRL Rwy 15-33
REIL Rwy 9R
HIRL Rwys 11-29, 9L-27R, and 9R-27L

FAF to MAP 7.5 NM					
Knots	60	90	120	150	180
Min:Sec	7:30	5:00	3:45	3:00	2:30



CATEGORY	A	B	C	D
S-ILS 29	209/18 200 (200-½)			
S-LOC 29 *	560/24 551 (600-½)		560/50 551 (600-1)	560/60 551 (600-1¼)
CIRCLING	560-1 551 (600-1)		560-1½ 551 (600-1½)	560-2 551 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC I-INB	APP CRS	Rwy Idg	10000
108.7	294°	TDZE	9
		Apt Elev	9

ILS RWY 29 (CAT II)

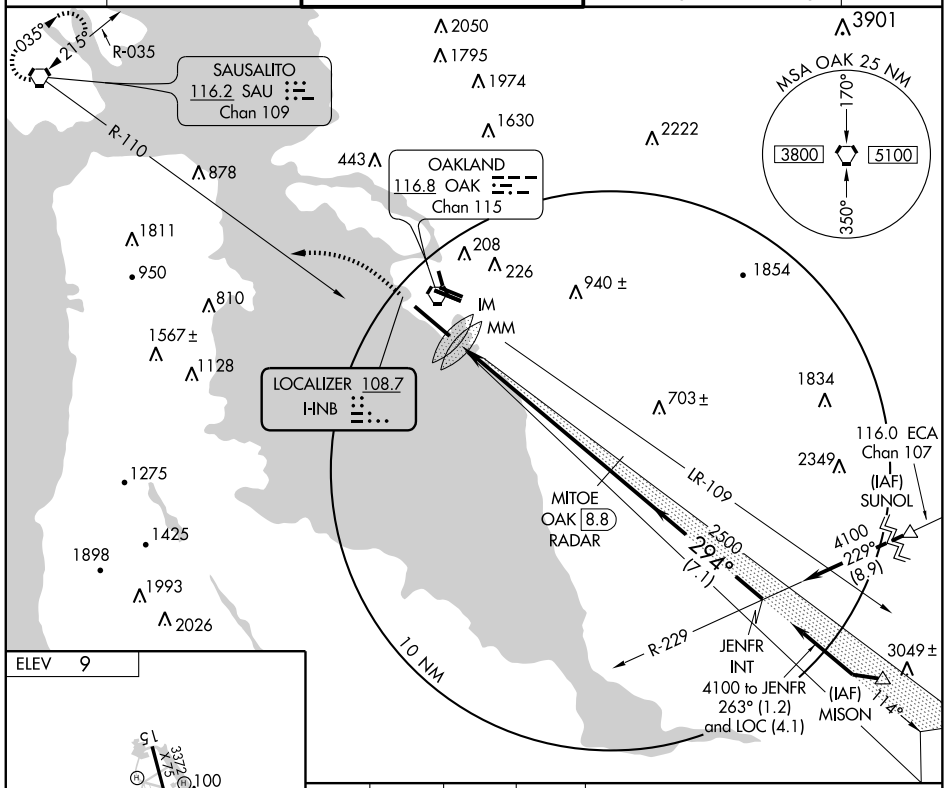
OAKLAND/ METROPOLITAN OAKLAND INTL (OAK)

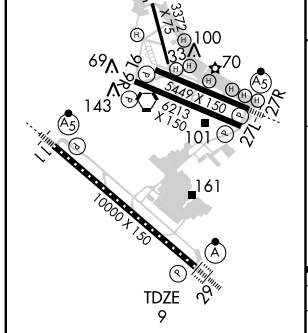
Obstructions in the missed approach area require a rate of climb of at least 300 FPM/100K, 450 FPM/ 150K, 600 FPM/200K to 600 feet, no wind conditions.

ALSF-2

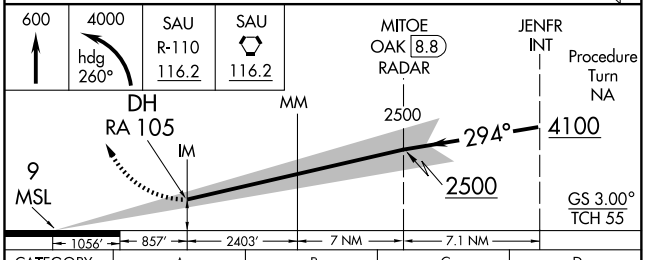
MISSED APPROACH: Climb to 600 then climbing left turn to 4000 via heading 260° and SAU R-110 to SAU VORTAC and hold.

ATIS	NORCAL APP CON	OAKLAND TOWER (Rwys 9-27, 15-33)	OAKLAND TOWER (Rwy 11-29)	GND CON (Rwys 9-27, 15-33)	GND CON (Rwy 11-29)	CLNC DEL
133.775	125.35 310.8 354.1	118.3	291.65 127.2 256.9	121.9	121.75	121.1





TDZ/CL Rwy 29
MIRL Rwy 15-33
REIL Rwy 9R
HIRL Rwys 11-29, 9L-27R, and 9R-27L



CATEGORY	A	B	C	D
S-ILS 29	RA 105/12 100 DA 109			

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC I-INB	APP CRS	Rwy Idg	10000
108.7	294°	TDZE	9
		Apt Elev	9

ILS RWY 29 (CAT III)

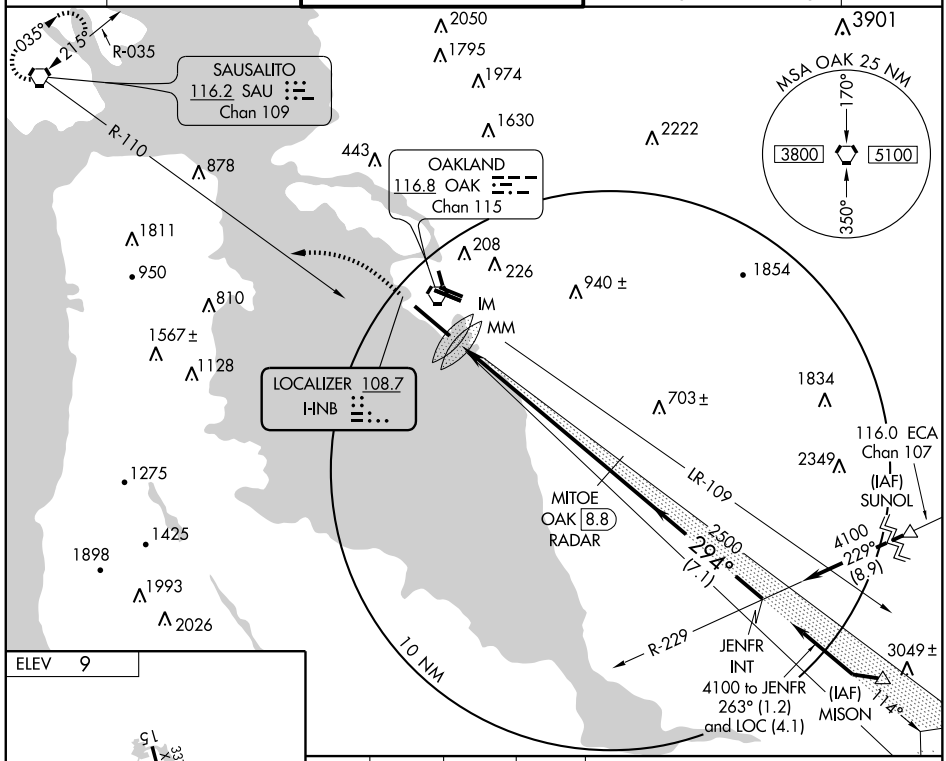
OAKLAND/ METROPOLITAN OAKLAND INTL (OAK)

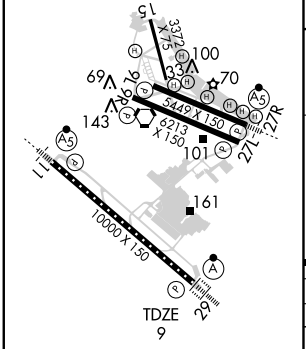
Obstructions in the missed approach area require a rate of climb of at least 300 FPM/100K, 450 FPM/ 150K, 600 FPM/200K to 600 feet, no wind conditions.

ALSF-2

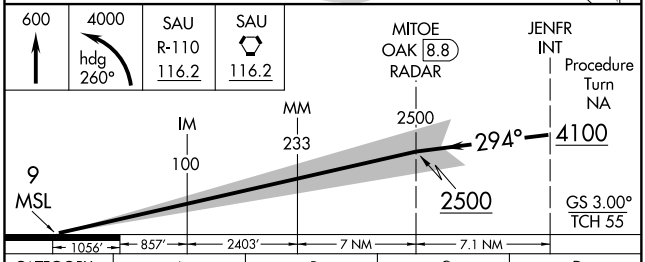
MISSED APPROACH: Climb to 600 then climbing left turn to 4000 via heading 260° and SAU R-110 to SAU VORTAC and hold.

ATIS	NORCAL APP CON	OAKLAND TOWER (Rwys 9-27, 15-33)	OAKLAND TOWER (Rwy 11-29)	GND CON (Rwys 9-27, 15-33)	GND CON (Rwy 11-29)	CLNC DEL
133.775	125.35 310.8 354.1	118.3	291.65 127.2 256.9	121.9	121.75	121.1





TDZ/CL Rwy 29
MIRL Rwy 15-33
REIL Rwy 9R
HIRL Rwys 11-29, 9L-27R, and 9R-27L



CATEGORY	A	B	C	D
S-ILS 29	CAT IIIa RVR 07			
S-ILS 29	CAT IIIb RVR 06			
S-ILS 29	CAT IIIc NA			

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-2, 14 JAN 2010 to 11 FEB 2010

CLOVIS TRANSITION (CZQ.LOCKE1): From over CZQ VORTAC via CZQ R-305 and MOD R-093 to MOD VOR/DME. Thence....

COALDALE TRANSITION (OAL.LOCKE1): From over OAL VORTAC via OAL R-246 and MOD R-064 to MOD VOR/DME. Thence...

MINA TRANSITION (MVA.LOCKE1): From over MVA VORTAC via MVA R-204, OAL R-246 and MOD R-064 to MOD VOR/DME. Thence....

MUSTANG TRANSITION (FMG.LOCKE1): From over FMG VORTAC via FMG R-182 and MOD R-064 to MOD VOR/DME. Thence....

....From over MOD VOR/DME via MOD R-245 to GROAN INT, then via SGD VORTAC R-107 to UPEND INT. Expect vectors to final approach course.

LOST COMMUNICATIONS METRO OAKLAND INTL ONLY: Depart UPEND INT via SGD R-107 to intercept and proceed via SAU R-035 to COMMO INT.

OAKLAND CENTER
134.37 281.5
NORCAL APP CON
128.325 254.3
SAN FRANCISCO INTL ATIS
113.7 118.85

MUSTANG
117.9 FMG
Chan 126
N39°31.88'-W119°39.36'
L-9, H-3

MINA
115.1 MVA
Chan 98
N38°33.92'-W118°01.97'
L-9, H-3

COALDALE
117.7 OAL
Chan 124
N38°00.20'-W117°46.23'
L-9, H-3

CLOVIS
112.9 CZQ
Chan 76
N36°53.06'-W119°48.91'
L-3-9, H-3

SCAGGS ISLAND
112.1 SGD
Chan 58

LOCALIZER 108.9
I-SIA
Chan 26

MANTECA
116.0 ECA
Chan 107

MODESTO
114.6 MOD
Chan 93
N37°37.64'-W120°57.47'

COMMO
N37°52.45'
W122°29.52'

116.2 SAU
R-035
Chan 109

UPEND
N38°01.92'
W122°05.82'

GROAN
N37°35.42'
W121°17.11'

(ITGIJ)
N37°49.56'
W119°22.09'

INYOE
N37°53.74'
W118°45.90'

TROSE
N37°41.95'
W120°24.25'

(IVIPY)
N37°28.56'
W120°26.39'

LOCKE
N37°42.81'
W121°30.58'

Expect clearance to cross at 10,000 feet. Turbojets cross at 250K IAS.

METRO OAKLAND INTL

SAN FRANCISCO INTL

OAKLAND
116.8 OAK
Chan 115

SAN FRANCISCO
115.8 SFO
Chan 105

R-107
191°
R-229
R-288
R-011
287° (34)
50
6000
287° (13)
63
8000
245° (16)
R-064
R-093
FL180
244° (27)
273° (26)
FL220
182° (115)
FL180
244° (50)
77
77
246° (29)
FL190
204° (53)
FL190
246° (48)
8000
305° (47)

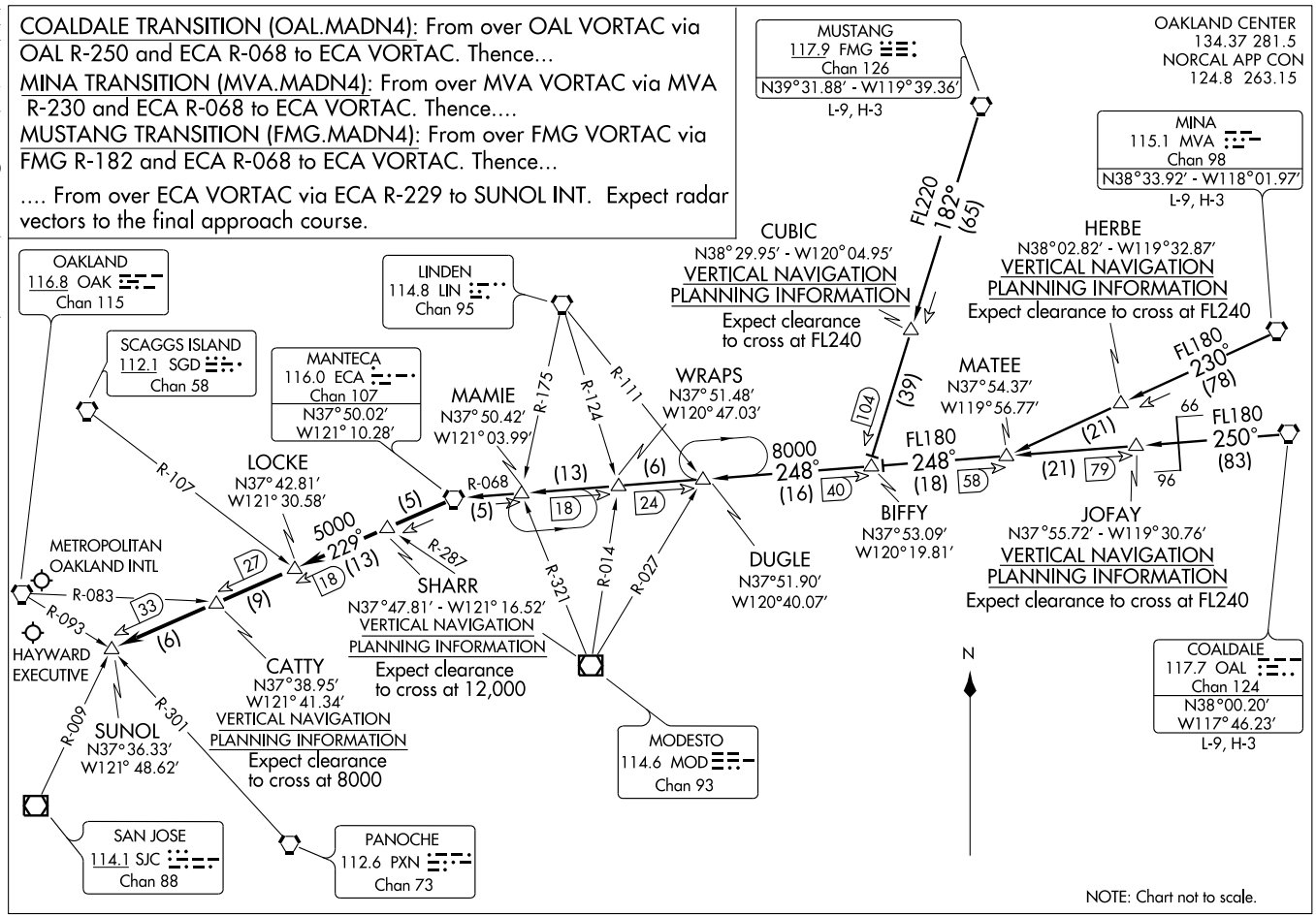
NOTE: Chart not to scale.

COALDALE TRANSITION (OAL.MADN4): From over OAL VORTAC via OAL R-250 and ECA R-068 to ECA VORTAC. Thence...

MINA TRANSITION (MVA.MADN4): From over MVA VORTAC via MVA R-230 and ECA R-068 to ECA VORTAC. Thence....

MUSTANG TRANSITION (FMG.MADN4): From over FMG VORTAC via FMG R-182 and ECA R-068 to ECA VORTAC. Thence...

.... From over ECA VORTAC via ECA R-229 to SUNOL INT. Expect radar vectors to the final approach course.



(ECA.MADN4) 09351

MADWIN FOUR ARRIVAL

ST-294 (FAA)

OAKLAND, CALIFORNIA

COALDALE TRANSITION (OAL.ECA1): From over OAL VORTAC via OAL R-250 and ECA R-068 to ECA VORTAC. Thence...

MINA TRANSITION (MVA.ECA1): From over MVA VORTAC via MVA R-230 and ECA R-068 to ECA VORTAC. Thence....

MUSTANG TRANSITION (FMG.ECA1): From over FMG VORTAC via FMG R-182 and ECA R-068 to ECA VORTAC. Thence...

.... From over ECA VORTAC via ECA R-229 to LOCKE INT, then via SGD R-107 to UPEND INT. Expect vectors to the final approach course.

LOST COMMUNICATIONS: Depart UPEND INT via SGD R-107 to intercept and proceed via SAU R-035 to COMMO INT.

OAKLAND CENTER
134.37 281.5
NORCAL APP CON
124.8 263.15

MUSTANG
117.9 FMG
Chan 126
N39°31.88' - W119°39.36'
L-9, H-3

MINA
115.1 MVA
Chan 98
N38°33.92' - W118°01.97'
L-9, H-3

FL200
182°
(65)

CUBIC
N38°29.95' - W120°04.95'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance
to cross at FL240

HERBE
N38°02.82' - W119°32.87'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance to cross at FL240

SCAGGS ISLAND
112.1 SGD
Chan 58

LINDEN
114.8 LIN
Chan 95

MANTECA
116.0 ECA
Chan 107
N37°50.02'
W121°10.28'

UPEND
N38°01.92'
W122°05.82'

MAMIE
N37°50.42'
W121°03.99'

WRAPS
N37°51.48'
W120°47.03'

MATEE
N37°54.37'
W119°56.77'

FL180
230°
(78)

R-107

R-175

R-124

R-111

(39)

104

(21)

66

FL180
250°
(83)

COMMO
N37°52.45'
W122°29.52'

LOCKE
N37°42.81'
W121°30.58'

R-068

(13)

(6)

8000
248°
(16)

40

FL180
248°
(18)

58

(21)

79

96

(5)

(5)

18

24

R-035

287°
(34)

50

5000
229°
(13)

18

JOFAY
N37°55.72' - W119°30.76'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance to cross at FL240

R-011

R-288

R-287

R-321

R-014

R-027

DUGLE
N37°51.90'
W120°40.07'

BIFFY
N37°53.09'
W120°19.81'

SHARR
N37°47.81' - W121°16.52'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance
to cross at 9000

VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance to cross at 20,000'.

N

COALDALE
117.7 OAL
Chan 124
N38°00.20'
W117°46.23'
L-9, H-3

SAN FRANCISCO
115.8 SFO
Chan 105

OAKLAND
116.8 OAK
Chan 115

MODESTO
114.6 MOD
Chan 93

SAUSALITO
116.2 SAU
Chan 109

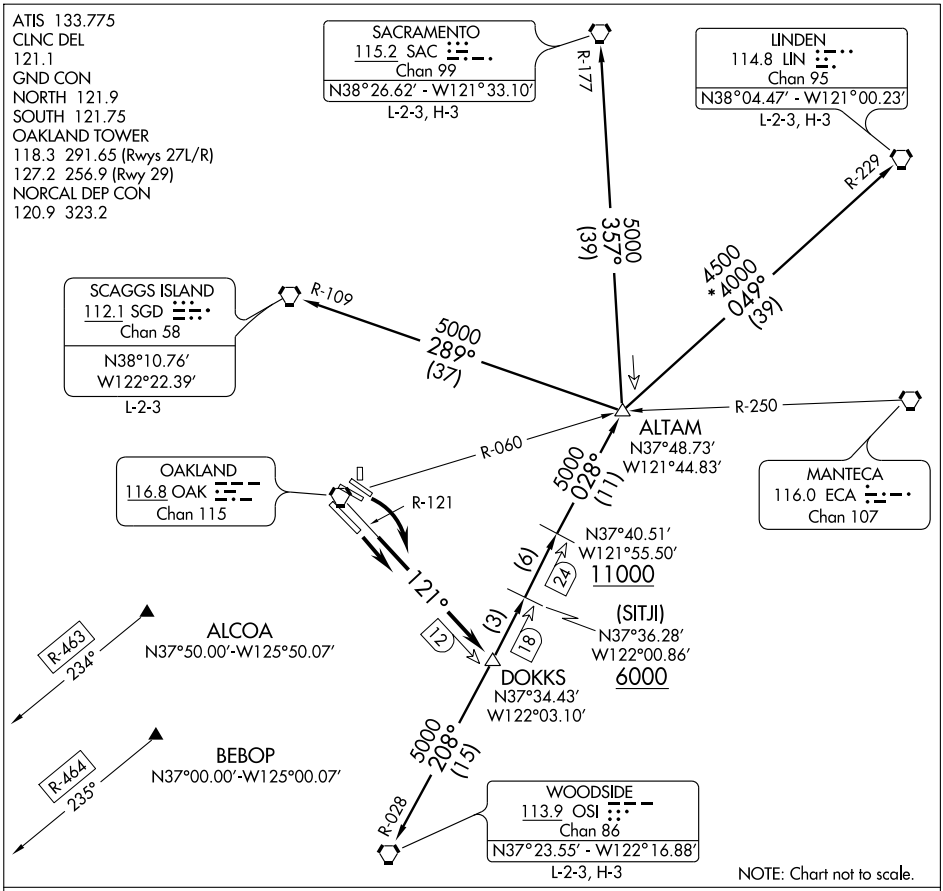
NOTE: Chart not to scale.

(ECA.ECA1) 08045
MANTECA ONE ARRIVAL
ST-294 (FAA)
METROPOLITAN OAKLAND INTL
OAKLAND, CALIFORNIA

(MARI4.DOKKS) 09127

MARINA FOUR DEPARTURE

OAKLAND/METROPOLITAN OAKLAND INTL (OAK)
SL-294 (FAA)
OAKLAND, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 9L/R: Turn right and climb via OAK-121 to DOKKS INT. Thence via (transition) or (assigned route/fix). Expect clearance to filed altitude ten minutes after departure.

TAKE-OFF RUNWAY 11: Maintain runway heading to intercept and proceed via the OAK R-121 to DOKKS INT. Thence via (transition) or (assigned route/fix). Except clearance to filed altitude ten minutes after departure.

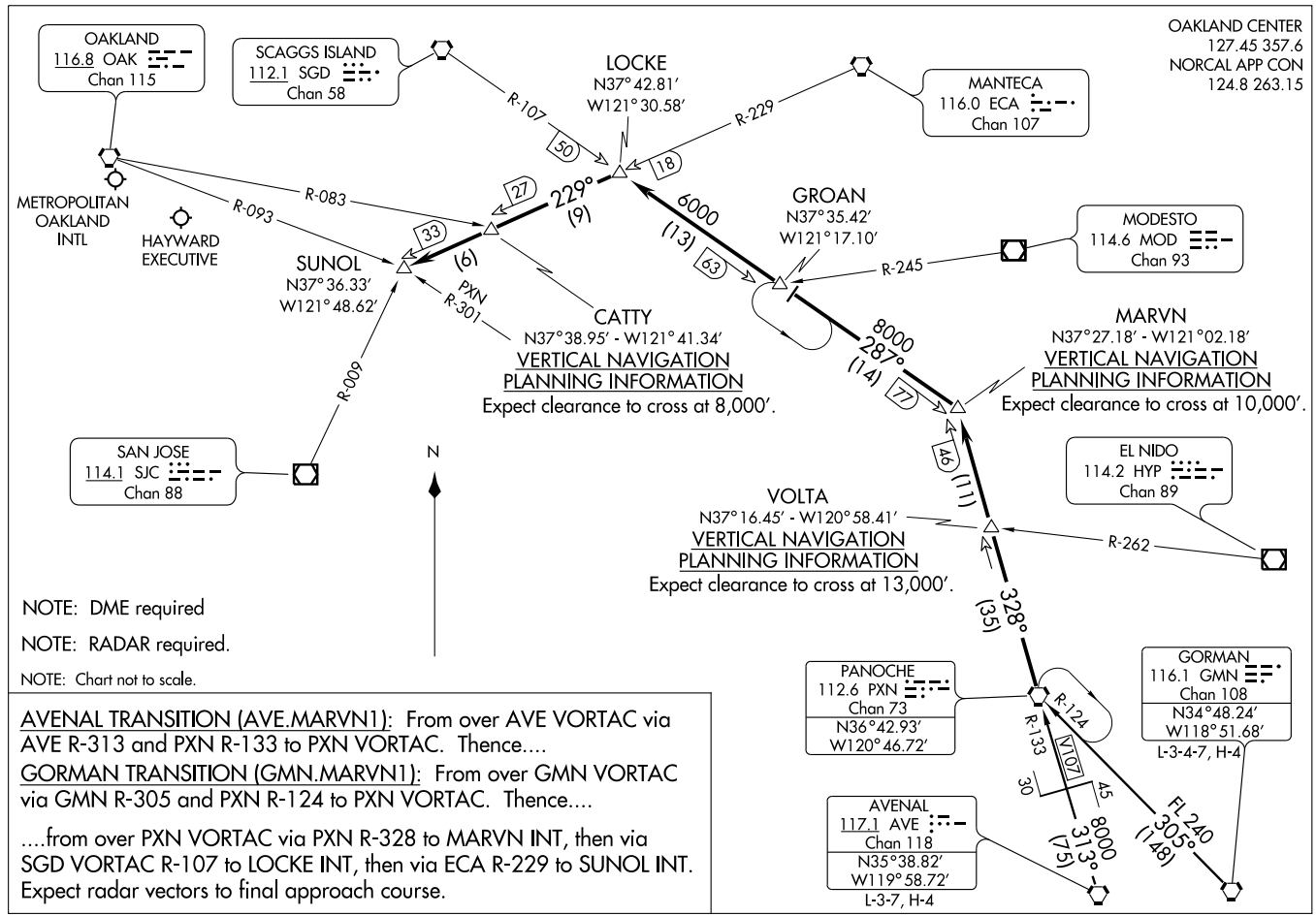
LINDEN TRANSITION (MARI4.LIN): From over DOKKS INT via OSI R-028 and LIN R-229 to LIN VORTAC. Cross OSI R-028 18 DME at or above 6000', OSI R-028 24 DME at or above 11000'.

SACRAMENTO TRANSITION (MARI4.SAC): From over DOKKS INT via OSI R-028 and SAC R-177 to SAC VORTAC. Cross OSI R-028 18 DME at or above 6000' and OSI R-028 24 DME at or above 11000'.

SCAGGS ISLAND TRANSITION (MARI4.SGD): From over DOKKS INT via OSI R-028 and SGD R-109 to SGD VORTAC. Cross OSI R-028 18 DME at or above 6000' and OSI R-028 24 DME at or above 11000'.

WOODSIDE TRANSITION (MARI4.OSI): From over DOKKS INT via OSI R-028 to OSI VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010



AVENAL TRANSITION (AVE.MARVN1): From over AVE VORTAC via AVE R-313 and PXN R-133 to PXN VORTAC. Thence....

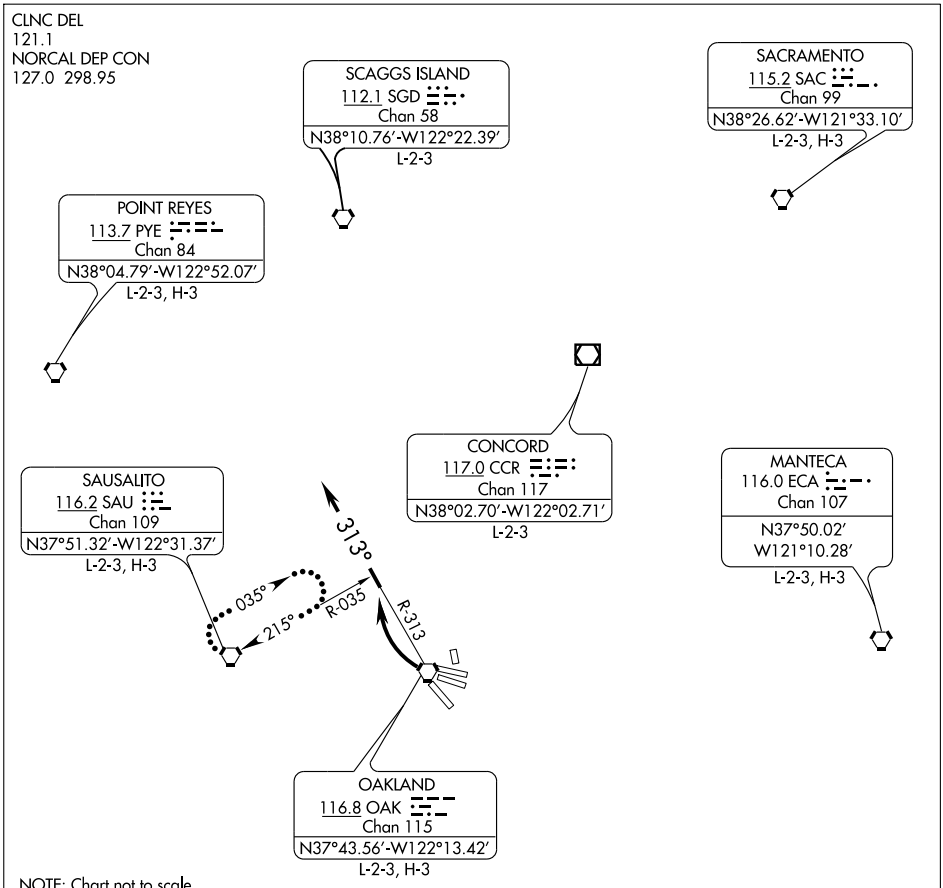
GORMAN TRANSITION (GMN.MARVN1): From over GMN VORTAC via GMN R-305 and PXN R-124 to PXN VORTAC. Thence....

....from over PXN VORTAC via PXN R-328 to MARVN INT, then via SGD VORTAC R-107 to LOCKE INT, then via ECA R-229 to SUNOL INT. Expect radar vectors to final approach course.

NIMITZ TWO DEPARTURE

SL-294 (FAA)

OAKLAND/METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA



NOTE: Chart not to scale.

NOTE: RADAR required.

NOTE: Departure Rwys 27L/R: A minimum climb of 375' per NM to 2000' is required.

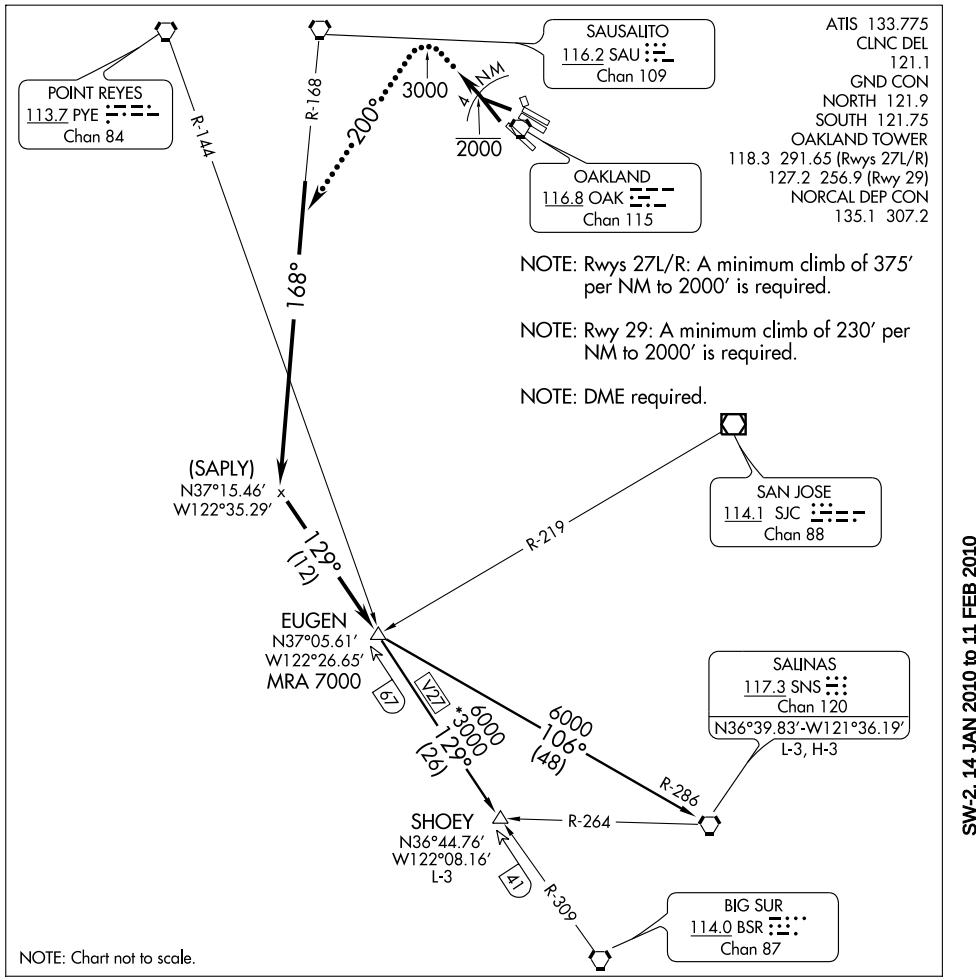
DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 27L/R and 29: Turn right, intercept and proceed via OAK R-313 for vectors to assigned fix/route. Expect clearance to filed altitude 10 minutes after departure.

LOST COMMUNICATIONS: If not in contact with departure after reaching 3000', proceed direct to SAU VORTAC and hold on SAU R-035. Climb in holding pattern to assigned altitude, then proceed to assigned fix/route.

SW-2, 14 JAN 2010 to 11 FEB 2010

NUEVO FIVE DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 27L/R and 29: Maintain runway heading for vector to the SAU R-168. Cross 4 miles northwest of OAK VORTAC at or below 2000′. Then via the SAU R-168 and the BSR R-309 to EUGEN INT. Then via (transition) or (assigned route). Expect clearance to filed altitude ten minutes after departure.

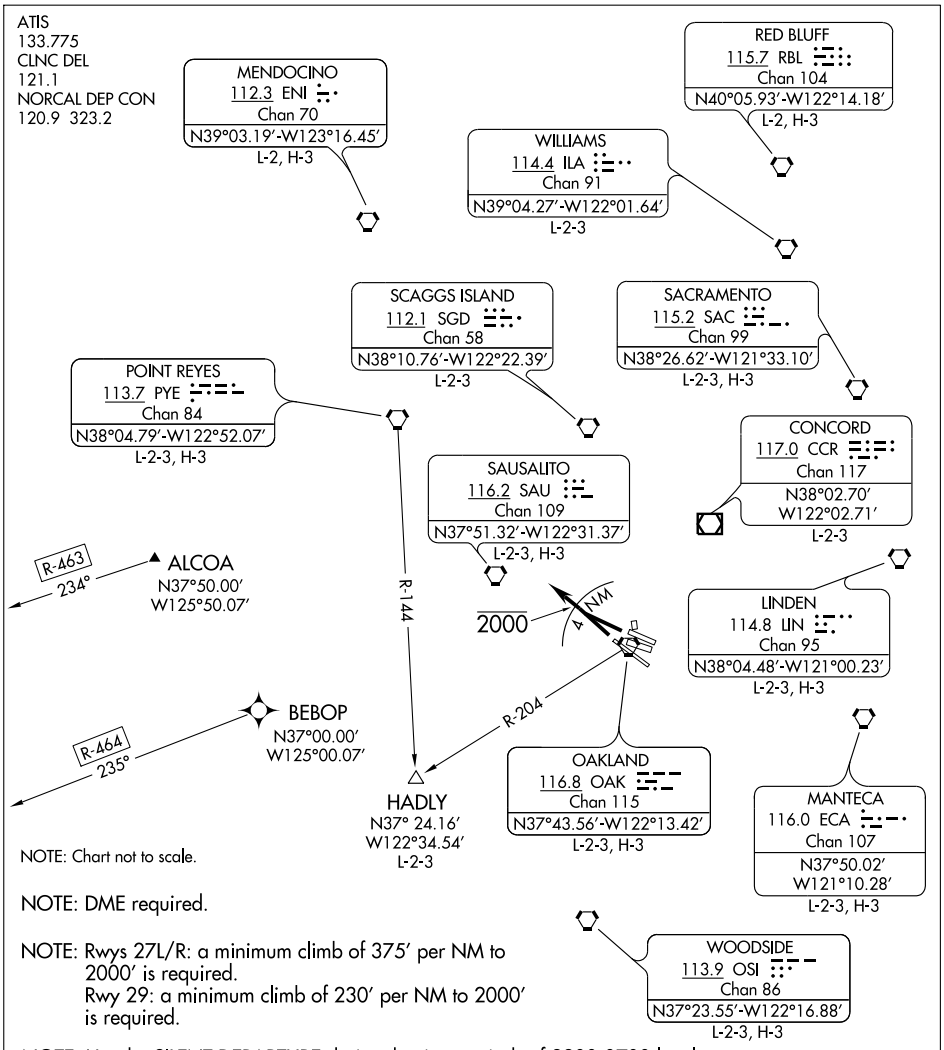
LOST COMMUNICATIONS: Take-off runways 27L/R and 29: After reaching 3000′, turn left heading 200°, intercept the SAU R-168, resume own navigation.

SALINAS TRANSITION (NUEVO5.SNS): From over EUGEN INT via the SNS R-286 to SNS VORTAC.

SHOEY TRANSITION (NUEVO5.SHOEY): From over EUGEN INT via the BSR R-309 to SHOEY INT.

OAKLAND FIVE DEPARTURE

OAKLAND/METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA



NOTE: DME required.

NOTE: Rwys 27L/R: a minimum climb of 375′ per NM to 2000′ is required.
Rwy 29: a minimum climb of 230′ per NM to 2000′ is required.

NOTE: Use the SILENT DEPARTURE during the time periods of 2200-0700 local in lieu of the OAKLAND DEPARTURE.

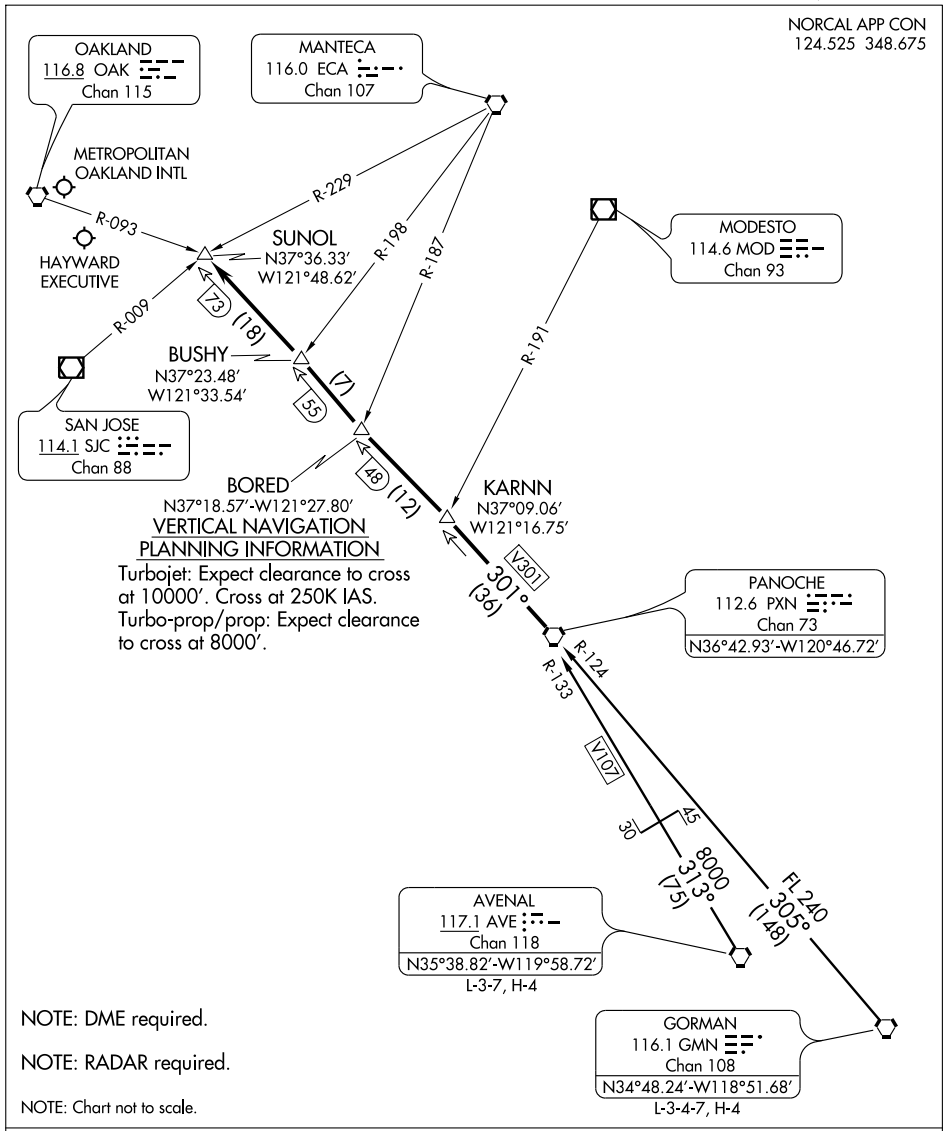
DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 27L/R and 29: Climb via runway heading or as assigned for vector to assigned route/fix. Cross 4 miles northwest of OAK VORTAC at or below 2000′, maintain assigned altitude. Expect clearance to filed altitude ten minutes after departure.

LOST COMMUNICATIONS: If not in contact with departure control after reaching 3000′, continue climb to assigned altitude and proceed direct to assigned route/fix.

SW-2, 14 JAN 2010 to 11 FEB 2010

PANOCHE TWO ARRIVAL



AVENAL TRANSITION (AVE.PXN2): From over AVE VORTAC via AVE R-313 and PXN R-133 to PXN VORTAC. Thence....

GORMAN TRANSITION (GMN. PXN2): From over GMN VORTAC via GMN R-305 and PXN R-124 to PXN VORTAC. Thence....

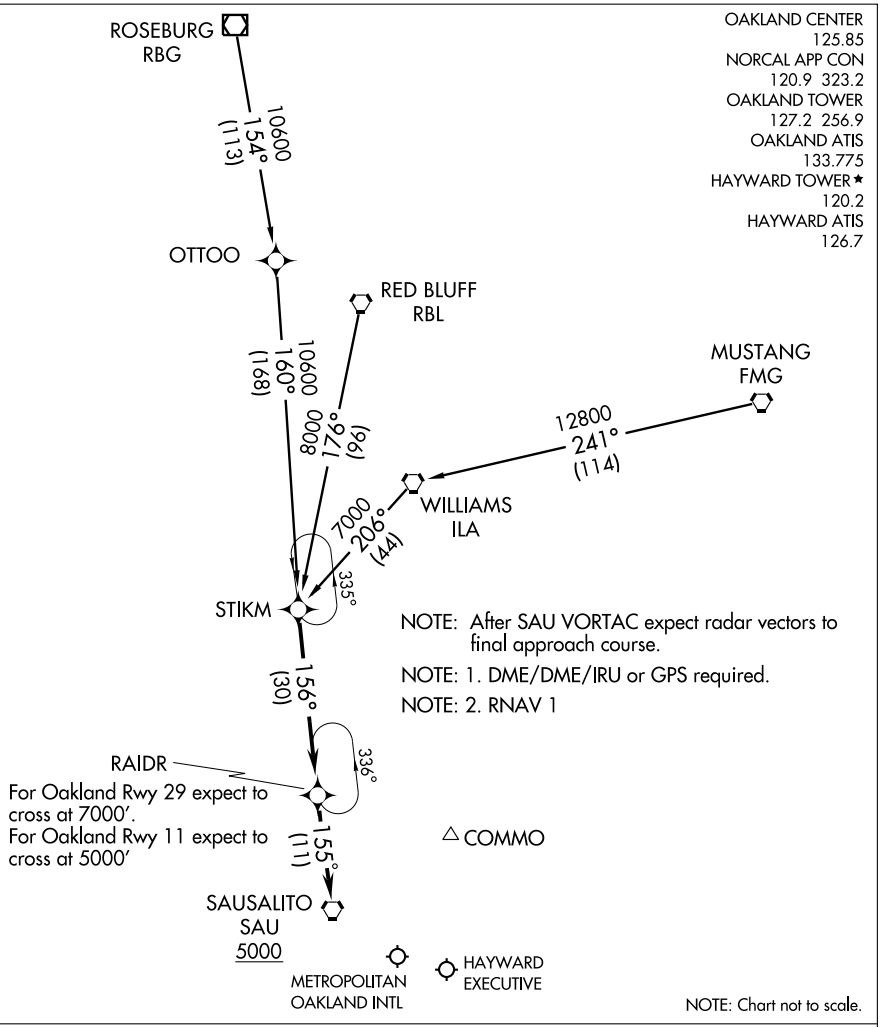
....From over PXN VORTAC via PXN R-301 to SUNOL INT. Expect radar vectors to the final approach course.

SW-2, 14 JAN 2010 to 11 FEB 2010

RAIDR TWO ARRIVAL (RNAV)

ST-294 (FAA)

OAKLAND, CALIFORNIA



MUSTANG TRANSITION (FMG.RAIDR2)

RED BLUFF TRANSITION (RBL.RAIDR2)

ROSEBURG TRANSITION (RBG.RAIDR2)

From over STIKM WP via 156° track to RAIDR WP, thence as depicted to cross SAU VORTAC at or above 5000. Expect radar vectors to final approach course.

LOST COMMUNICATIONS:

Depart SAU VORTAC and proceed direct to COMMO INT.

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	5449
107°	TDZE	3
	Apt Elev	6

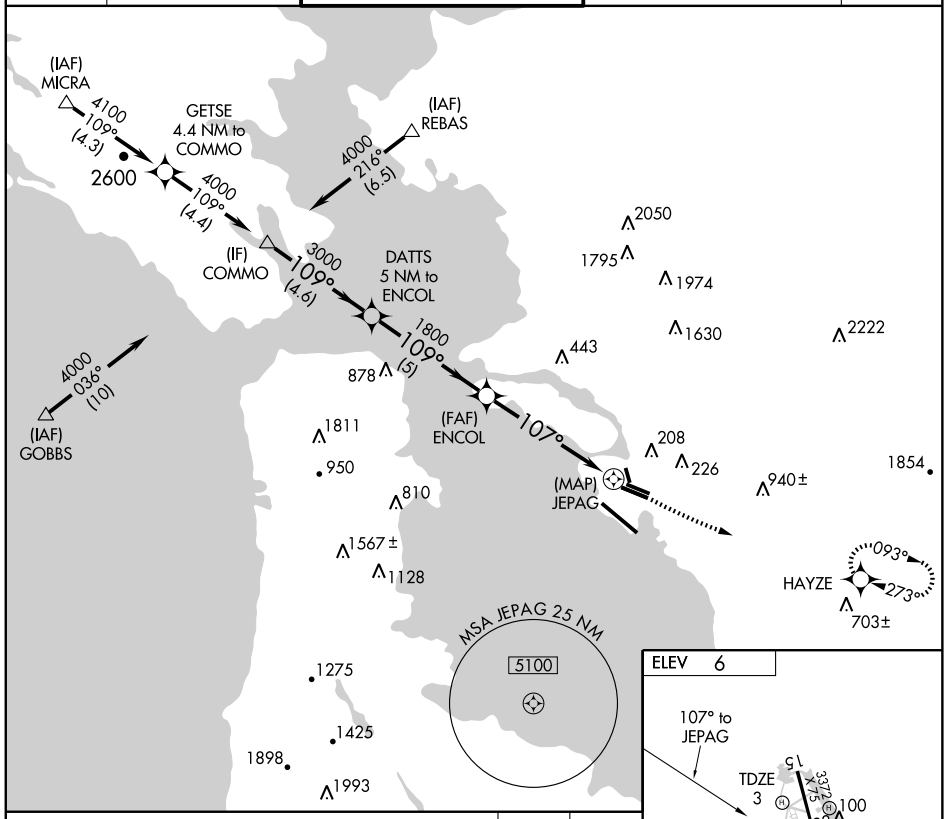
RNAV (GPS) RWY 9L

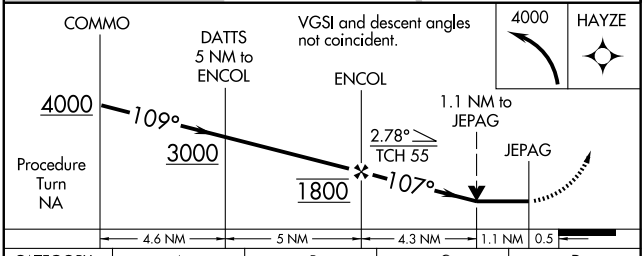
OAKLAND/ METROPOLITAN OAKLAND INTL (OAK)

NA GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

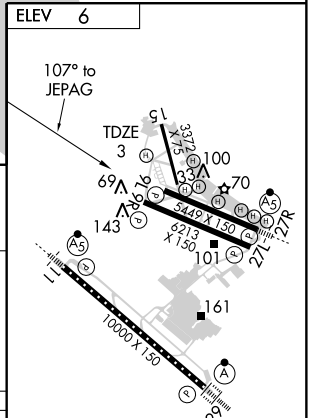
MISSED APPROACH: Climbing left turn to 4000 direct HAYZE WP and hold.

ATIS	NORCAL APP CON	OAKLAND TOWER (Rwys 9-27, 15-33)	OAKLAND TOWER (Rwy 11-29)	GND CON (Rwys 9-27, 15-33)	GND CON (Rwy 11-29)	CLNC DEL
133.775	125.35 310.8 354.1	118.3	291.65 127.2 256.9	121.9	121.75	121.1





CATEGORY	A	B	C	D
LNAV MDA	540-1	537 (600-1)	540-1½ 537 (600-1½)	540-1¾ 537 (600-1¾)
CIRCLING	540-1	534 (600-1)	540-1½ 534 (600-1½)	560-2 554 (600-2)



TDZ/CL Rwy 29
MIRL Rwy 15-33
REIL Rwy 9R
HIRL Rwys 11-29, 9L-27R, and 9R-27L

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	6213
109°	TDZE	5
	Apt Elev	6

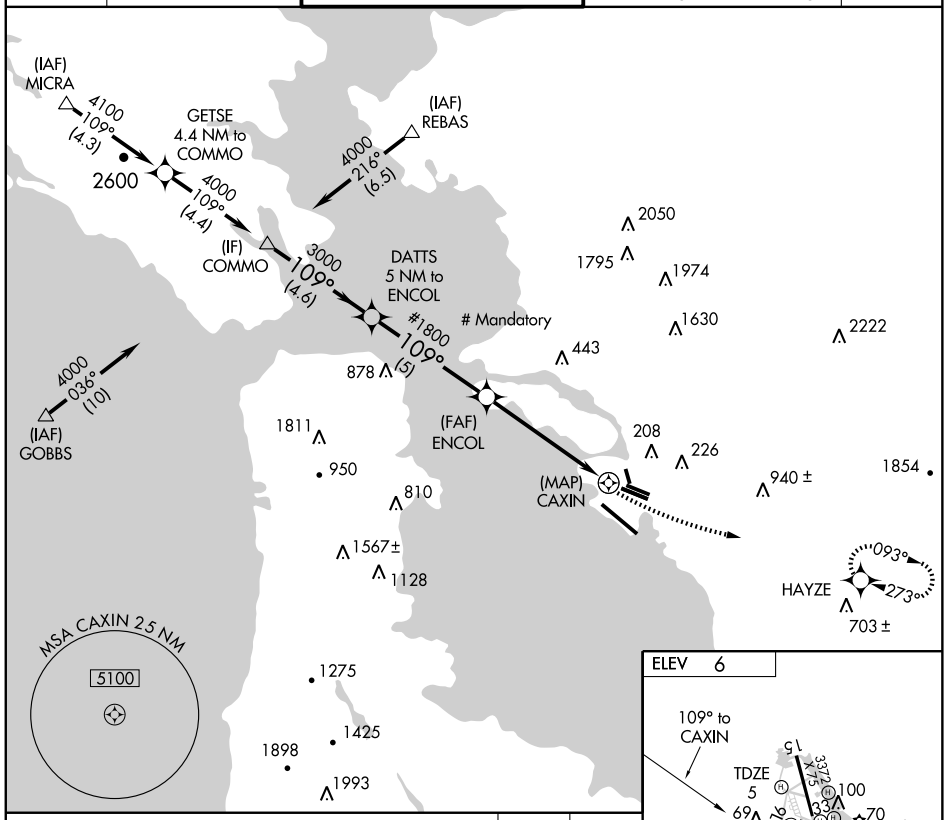
RNAV (GPS) RWY 9R

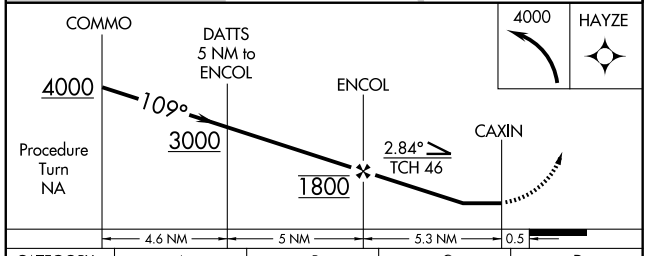
OAKLAND/METROPOLITAN OAKLAND INTL (OAK)

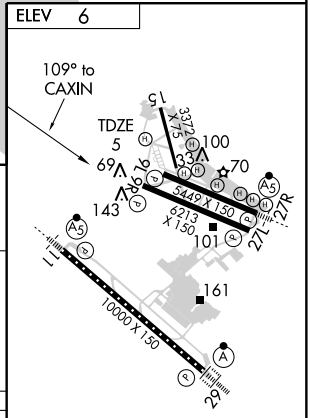
NA GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climbing left turn to 4000 direct HAYZE WP and hold.

ATIS	NORCAL APP CON	OAKLAND TOWER (Rwys 9-27, 15-33)	OAKLAND TOWER (Rwy 11-29)	GND CON (Rwys 9-27, 15-33)	GND CON (Rwy 11-29)	CLNC DEL
133.775	125.35 310.8 354.1	118.3	291.65 127.2 256.9	121.9	121.75	121.1







CATEGORY	A	B	C	D
LNAV MDA	520-1 515 (600-1)		520-1½ 515 (600-1½)	520-1¾ 515 (600-1¾)
CIRCLING	520-1 514 (600-1)	540-1 534 (600-1)	540-1½ 534 (600-1½)	560-2 554 (600-2)

TDZ/CL Rwy 29
MIRL Rwy 15-33
REIL Rwy 9R
HIRL Rwys 11-29, 9L-27R, and 9R-27L

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	10000
114°	TDZE	9
	Apt Elev	9

RNAV (GPS) RWY 11

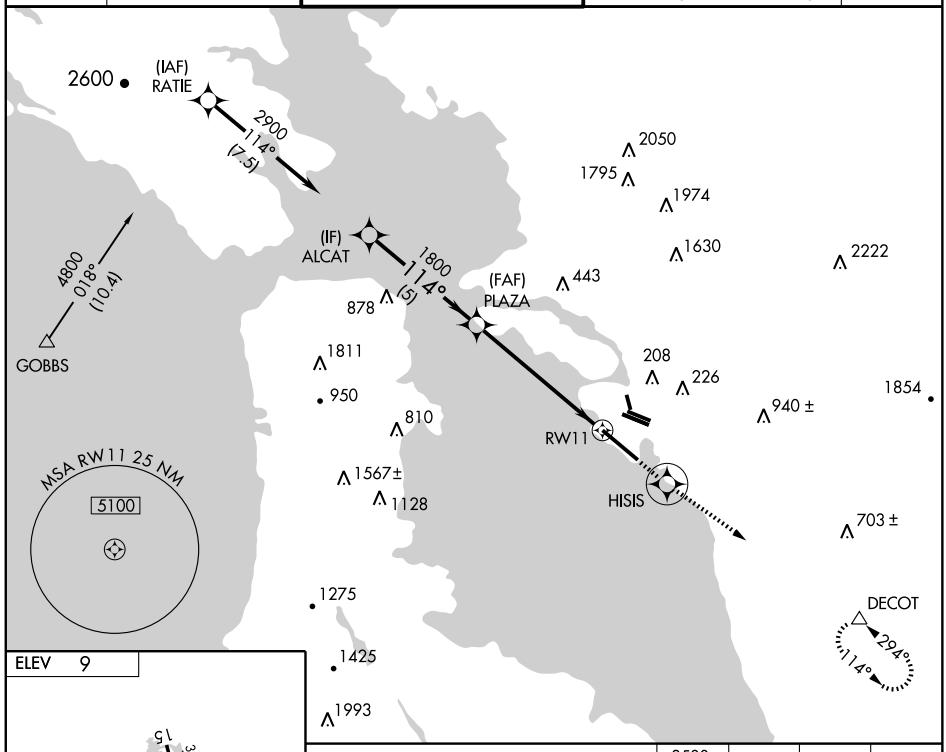
OAKLAND/METROPOLITAN OAKLAND INTL (OAK)

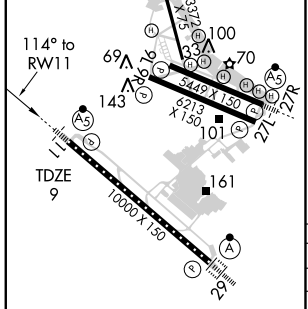
DME/DME RNP-0.3 NA.
Baro-VNAV NA below -15°C (5°F).

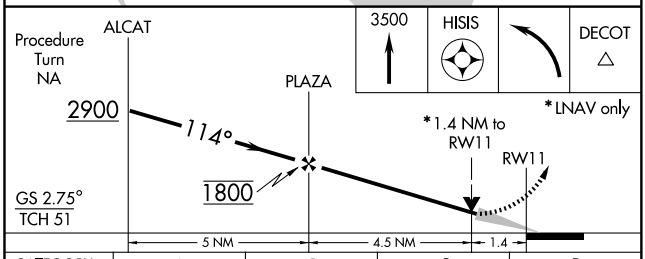
MALSR

MISSED APPROACH: Climb to 3500 direct HISIS WP, then left turn direct DECOT WP and hold.

ATIS	NORCAL APP CON	OAKLAND TOWER (Rwys 9-27, 15-33)	OAKLAND TOWER (Rwy 11-29)	GND CON (Rwys 9-27, 15-33)	GND CON (Rwy 11-29)	CLNC DEL
133.775	125.35 310.8 354.1	118.3	291.65 127.2 256.9	121.9	121.75	121.1







CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	333/40 324 (400-¾)			
LNAV MDA	460/24 451 (500-½)		460/40 451 (500-¾)	460/50 451 (500-1)
CIRCLING	520-1¼ 511 (600-1¼)	540-1¼ 531 (600-1¼)	540-1½ 531 (600-1½)	560-2 551 (600-2)

TDZ/CL Rwy 29
MIRL Rwy 15-33
REIL Rwy 9R
HIRL Rwys 11-29, 9L-27R, and 9R-27L

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	6213
CH 72700	276°	TDZE	9
W27A		Apt Elev	9

RNAV (GPS) RWY 27L

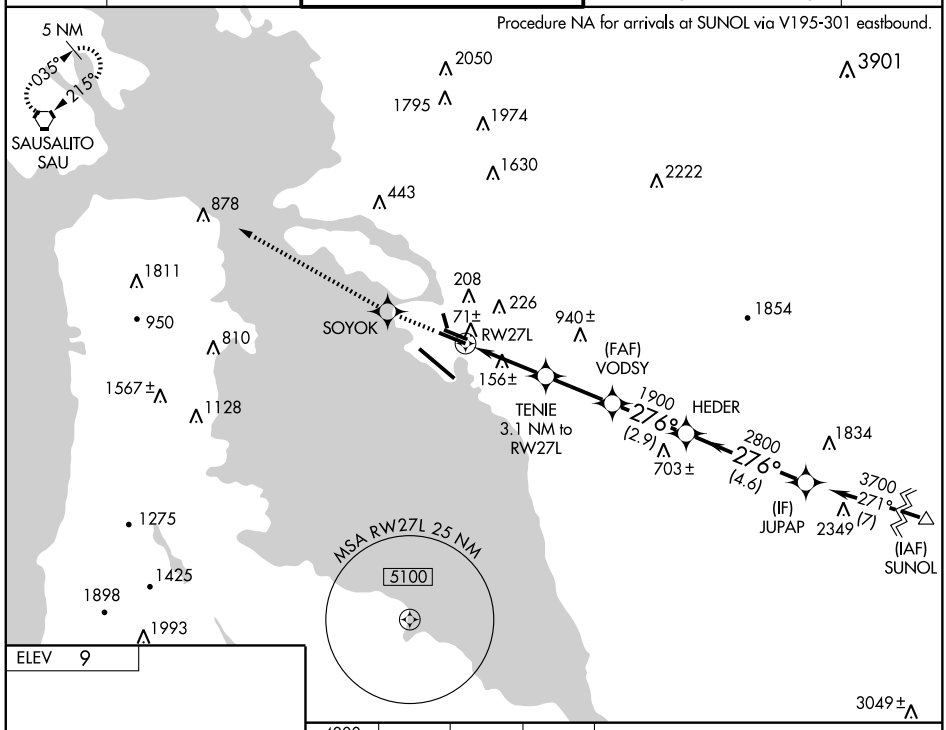
OAKLAND/METROPOLITAN OAKLAND INTL (OAK)

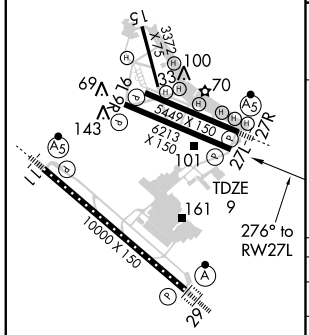
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F) DME/DME RNP -0.3 NA.

MISSED APPROACH: Climb to 4000 direct SOYOK then via 283° track to SAU VORTAC and hold, continue climb-in-hold to 4000.

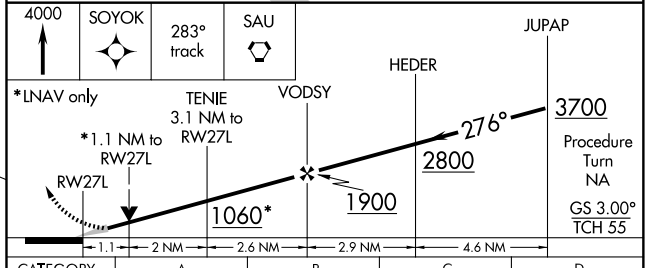
ATIS	NORCAL APP CON	OAKLAND TOWER (Rwys 9-27, 15-33)	OAKLAND TOWER (Rwy 11-29)	GND CON (Rwys 9-27, 15-33)	GND CON (Rwy 11-29)	CLNC DEL
133.775	125.35 310.8 354.1	118.3	291.65 127.2 256.9	121.9	121.75	121.1

Procedure NA for arrivals at SUNOL via V195-301 eastbound.





TDZ/CL Rwy 29
MIRL Rwy 15-33
REIL Rwy 9R
HIRL Rwys 11-29, 9L-27R, and 9R-27L



CATEGORY	A	B	C	D
LPV DA	259/40 250 (300-¾)			
LNAV/VNAV DA	359/60 350 (400-1¼)			
LNAV MDA	420/50 411 (500-1)		420/60 411 (500-1¼)	
CIRCLING	520-1¼ 511 (600-1¼)	540-1¼ 531 (600-1¼)	540-1½ 531 (600-1½)	560-2 551 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	5449
276°	TDZE	4
	Apt Elev	6

RNAV (GPS) RWY 27R

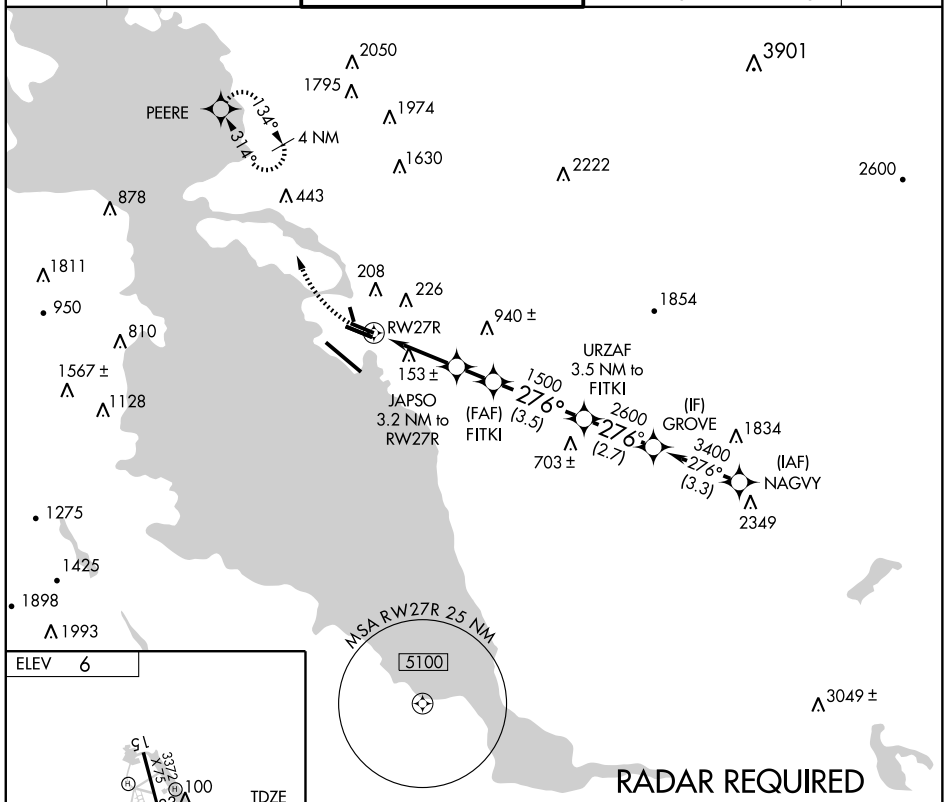
OAKLAND/METROPOLITAN OAKLAND INTL (OAK)

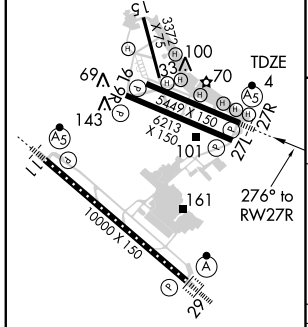
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.
NA For inoperative MALSR increase Cat D visibility to RVR 6000.

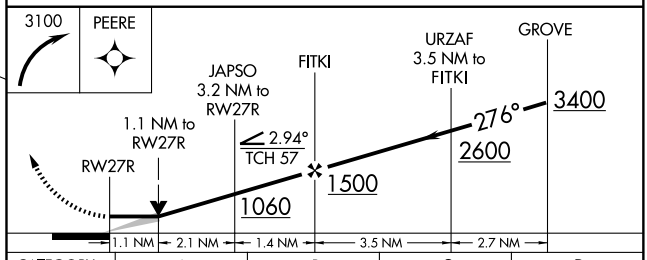
MALSR

MISSED APPROACH: Climbing right turn to 3100 direct PEERE WP and hold.

ATIS	NORCAL APP CON	OAKLAND TOWER (Rwys 9-27, 15-33)	OAKLAND TOWER (Rwy 11-29)	GND CON (Rwys 9-27, 15-33)	GND CON (Rwy 11-29)	CLNC DEL
133.775	125.35 310.8 354.1	118.3	291.65 127.2	256.9 121.9	121.75	121.1







CATEGORY	A	B	C	D
LNAV MDA	420/24 416 (500-½)		420/40 416 (500-¾)	420/50 416 (500-1)
CIRCLING	520-1 514 (600-1)	540-1 534 (600-1)	540-1½ 534 (600-1½)	560-2 554 (600-2)

TDZ/CL Rwy 29
MIRL Rwy 15-33
REIL Rwy 9R
HIRL Rwys 11-29, 9L-27R, and 9R-27L

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	10000
294°	TDZE	6
	Apt Elev	6

RNAV (GPS) RWY 29

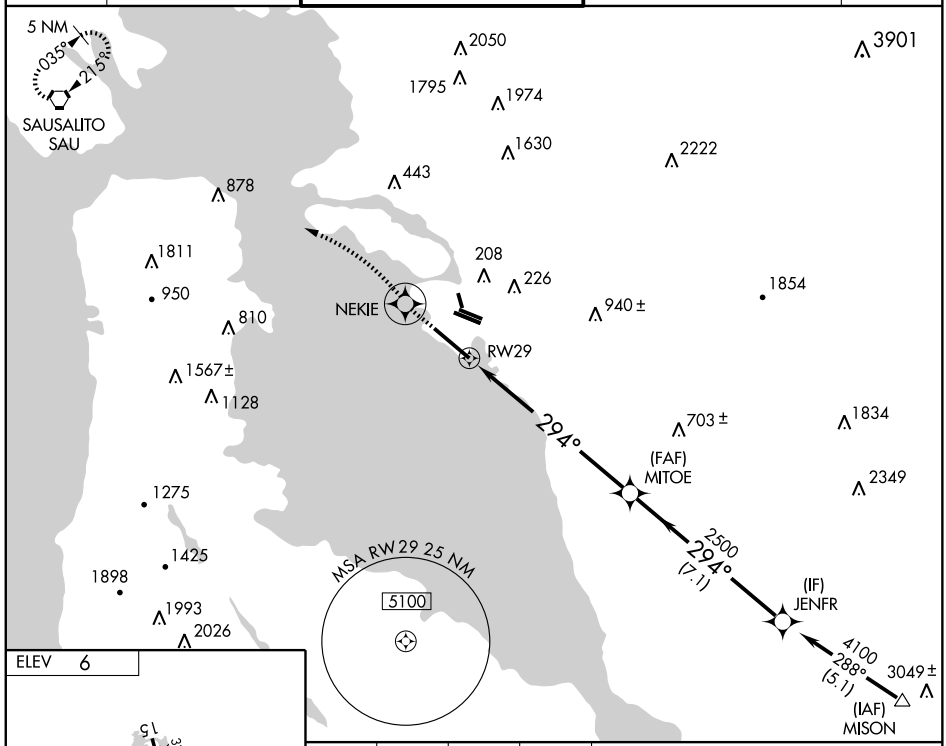
OAKLAND/METROPOLITAN OAKLAND INTL (OAK)

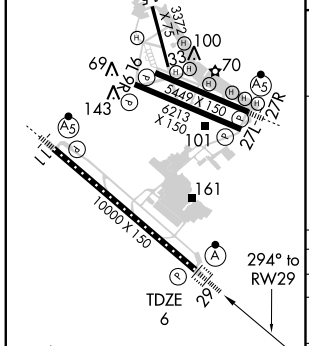
T A NA W — GPS or RNP-0.3 required. DME/DME RNP-0.3 NA. Baro-VNAV NA below -15°C (5°F). For inoperative ALSF, increase LNAV/VNAV Cat. D visibility to RVR 5000.

ALSF-2

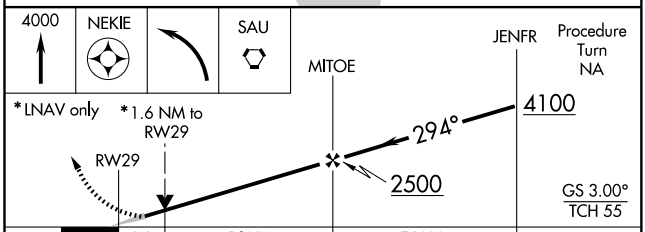
MISSED APPROACH: Climb to 4000 direct NEKIE WP, then left turn direct SAU VORTAC and hold.

ATIS	NORCAL APP CON	OAKLAND TOWER (Rwys 9-27, 15-33)	OAKLAND TOWER (Rwy 11-29)	GND CON (Rwys 9-27, 15-33)	GND CON (Rwy 11-29)	CLNC DEL
133.775	125.35 310.8 354.1	118.3 291.65	127.2 256.9	121.9	121.75	121.1





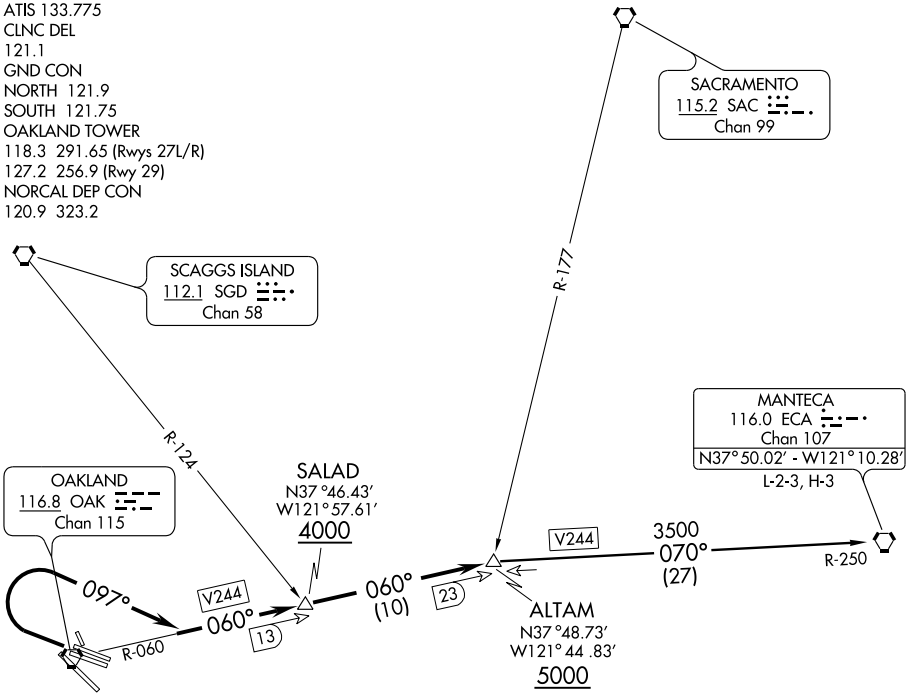
TDZ/CL Rwy 29
MIRL Rwy 15-33
REIL Rwy 9R
HIRL Rwys 11-29, 9L-27R, and 9R-27L



CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	300/24 294 (300-½)			300/40 294 (300-¾)
LNAV MDA	580/24 574 (600-½)		580/50 574 (600-1)	580/60 574 (600-1¼)
CIRCLING	580-1 574 (600-1)		580-1½ 574 (600-1½)	580-2 574 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

ATIS 133.775
CLNC DEL
121.1
GND CON
NORTH 121.9
SOUTH 121.75
OAKLAND TOWER
118.3 291.65 (Rwys 27L/R)
127.2 256.9 (Rwy 29)
NORCAL DEP CON
120.9 323.2



TAKE-OFF MINIMUMS

Rwys 9L/R, 11, 15, 29, 33: not authorized.

Rwy 27L/R: 2100-3 or standard with a minimum climb of 270' per NM to 2000.

NOTE: For use 2200-0600L.

NOTE: For Cat A/B prop aircraft only.

NOTE: Chart not to scale.

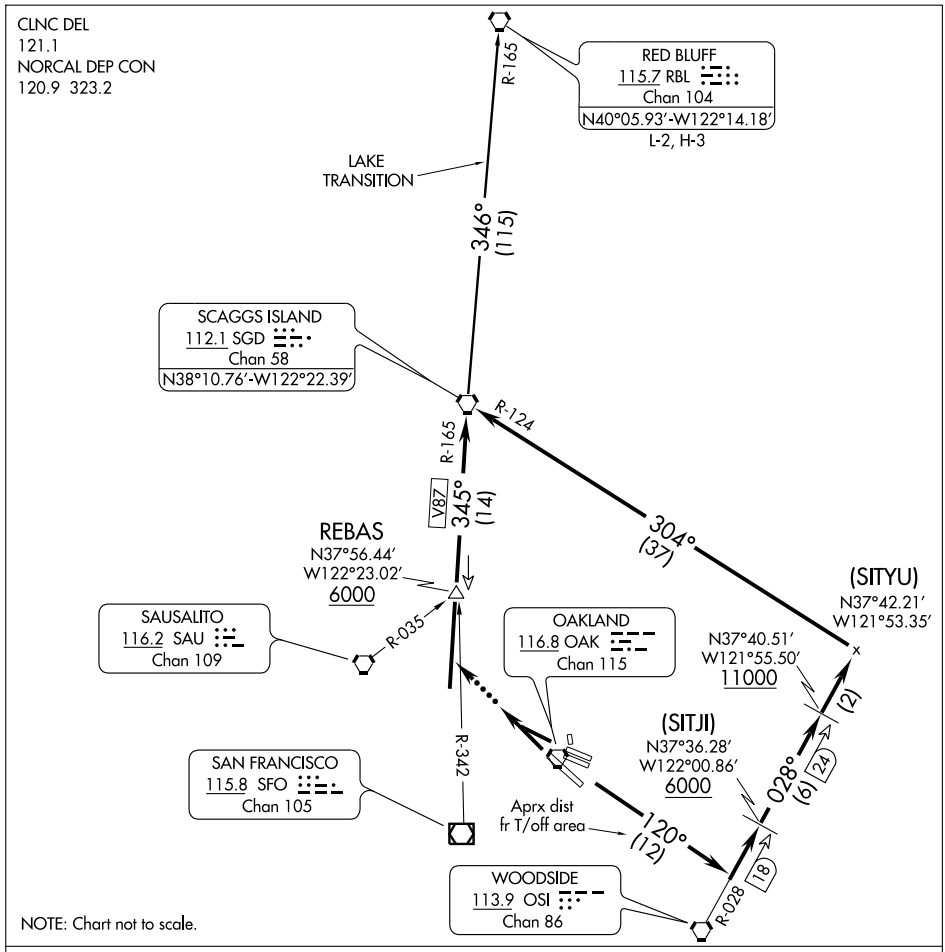
DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 27 L/R: Climbing right turn heading 097° to intercept and proceed via OAK VORTAC R-060 (V28-109-244-392) to ALTAM INT. Cross SALAD INT/OAK 13 DME at or above 4000, cross ALTAM INT/OAK 23 DME at or above 5000. Then via transition or assigned route. Expect clearance to filed altitude 10 minutes after departure.

MANTECA TRANSITION (SALAD1.ECA): From over ALTAM INT via ECA R-250 to ECA VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

SCAGGS ISLAND ONE DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 9L/R AND 11: Turn right heading 120° to intercept and proceed via the OSI R-028 to intercept and proceed via the SGD R-124 to SGD VORTAC. Thence via (transition) or (assigned route). Expect clearance to filed altitude ten minutes after departure.

TAKE-OFF RUNWAYS 27L/R AND 29: Maintain runway heading for vector to the SGD R-165, then via the SGD R-165 to the SGD VORTAC. Cross the SGD R-165 14 DME at or above 6000'. Thence via (transition) or (assigned route). Expect clearance to filed altitude ten minutes after departure.

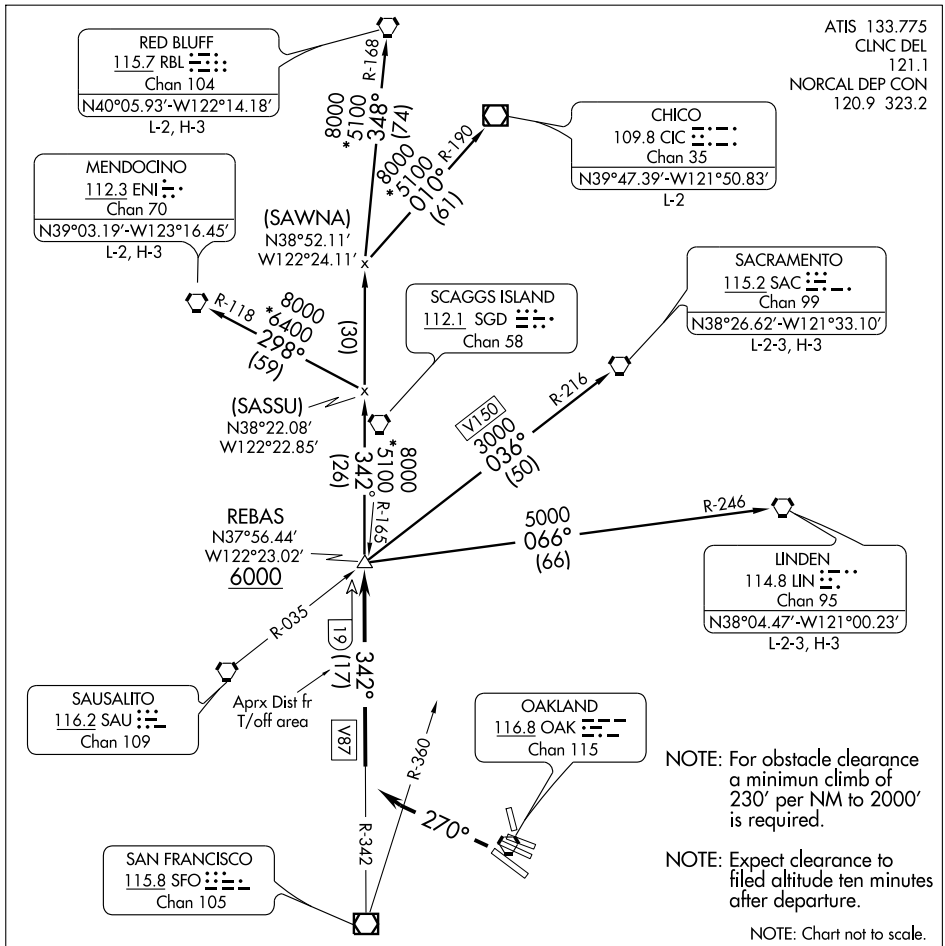
LOST COMMUNICATIONS: Take-off runways 27L/R and 29: Intercept the SGD R-165, resume normal navigation.

LAKE TRANSITION (SGD1.RBL): From over SGD VORTAC via SGD R-346 and RBL R-165 to RBL VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

SILENT SEVEN DEPARTURE

OAKLAND/METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA
SL-294 (FAA)



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 29: Turn left heading 270° to intercept and proceed via SFO R-342 (commence right turn at SFO R-360) to REBAS INT. Cross REBAS INT at or above 6000'. Thence via (transition) or (assigned route).

CHICO TRANSITION (SLNT7.CIC): From over REBAS INT via SFO R-342 and CIC R-190 to CIC VOR/DME.

LINDEN TRANSITION (SLNT7.LIN): From over REBAS INT via LIN R-246 to LIN VORTAC.

MENDOCINO TRANSITION (SLNT7.ENI): From over REBAS INT via SFO R-342 and ENI R-118 to ENI VORTAC.

RED BLUFF TRANSITION (SLNT7.RBL): From over REBAS INT via SFO R-342 and RBL R-168 to RBL VORTAC

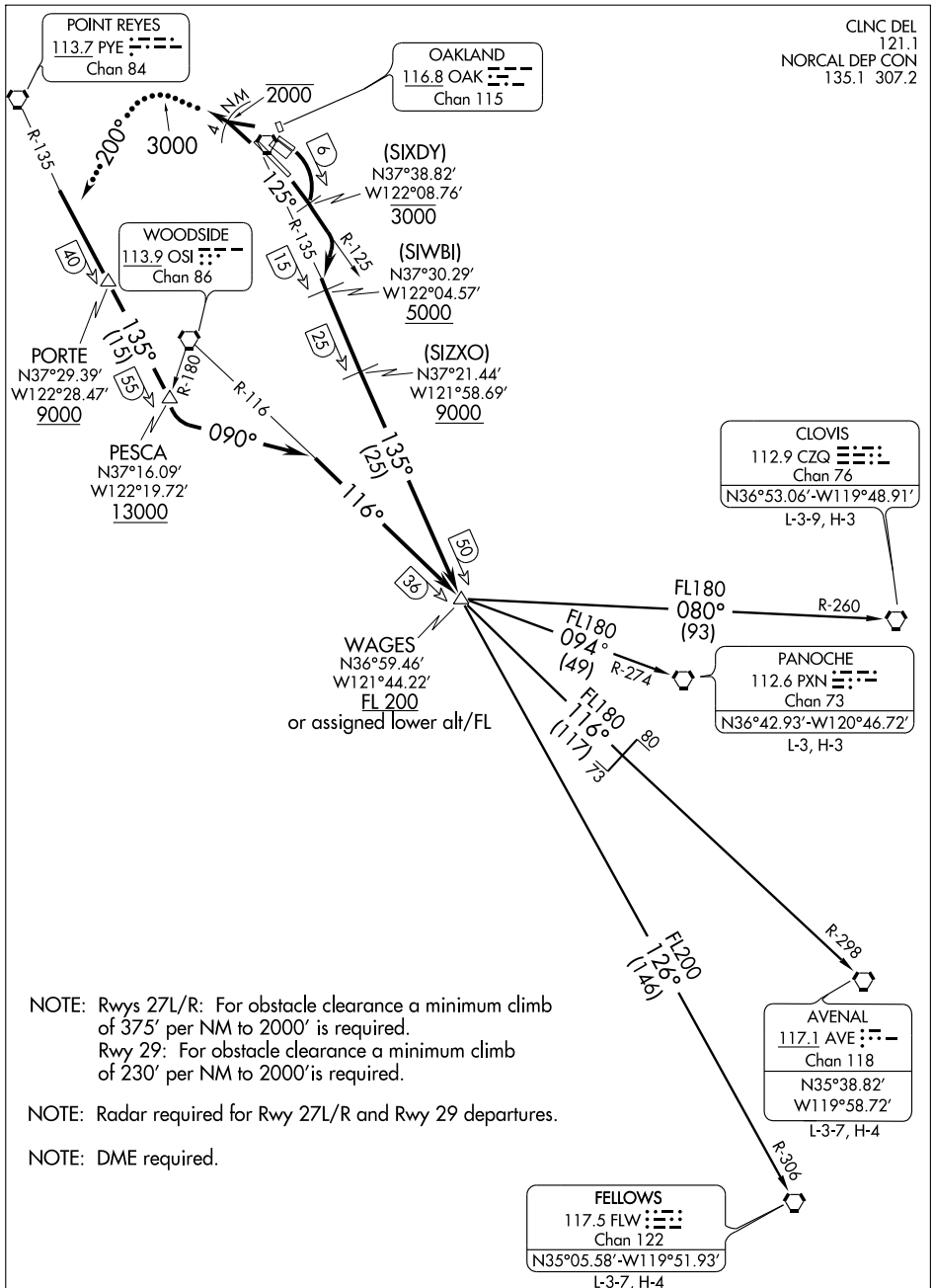
SACRAMENTO TRANSITION (SLNT7.SAC): From over REBAS INT via SAC R-216 to SAC VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

(SKYL3.WAGES) 07298

SKYLINE THREE DEPARTURE

OAKLAND/ METROPOLITAN OAKLAND INTL (OAK)
SL-294 (FAA)
OAKLAND, CALIFORNIA



NOTE: Rwys 27L/R: For obstacle clearance a minimum climb of 375' per NM to 2000' is required.
Rwy 29: For obstacle clearance a minimum climb of 230' per NM to 2000'is required.

NOTE: Radar required for Rwy 27L/R and Rwy 29 departures.

NOTE: DME required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SW-2, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 9L/R: Turn right to intercept and proceed via the OAK R-125, cross the OAK R-125/6 DME fix at or below 3000'; then turn right to intercept and proceed via the OAK R-135 to WAGES INT. Cross the OAK R-135/15 DME fix at or above 5000'. Cross the OAK R-135/25 DME fix at or above 9000'. Thence....

TAKE-OFF RUNWAY 11: Maintain runway heading to intercept and proceed via the OAK R-125, cross the OAK R-125/6 DME fix at or below 3000'; then turn right to intercept and proceed via the OAK R-135 to WAGES INT. Cross the OAK R-135/15 DME fix at or above 5000'. Cross the OAK R-135/25 DME fix at or above 9000'. Thence....

TAKE-OFF RUNWAYS 27L/R and 29: Maintain runway heading for vector to the PYE R-135, then via the PYE R-135 to PESCA INT. Cross a point 4 miles northwest of OAK VORTAC at or below 2000'. Cross PORTE DME FIX at or above 9000' and PESCA INT at or above 13000'. Then turn left heading 090° to intercept and proceed via the OSI R-116 to WAGES INT. Thence....

....via (transition) or (assigned route). Expect further clearance to filed altitude 10 minutes after departure. Cross WAGES INT at or above FL200 or assigned lower altitude or flight level.

LOST COMMUNICATIONS:
Take-off runways 27L/R and 29: After reaching 3000', turn left heading 200°, intercept and proceed via the PYE R-135. Resume your own navigation.

AVENAL TRANSITION (SKYL3.AVE): From over WAGES INT via OSI R-116 and AVE R-298 to AVE VORTAC.

CLOVIS TRANSITION (SKYL3.CZQ): From over WAGES INT via CZQ R-260 to CZQ VORTAC.

FELLOWS TRANSITION (SKYL3.FLW): From over WAGES INT via FLW R-306 to FLW VORTAC.

PANOCHE TRANSITON (SKYL3.PXN): From over WAGES INT via PXN R-274 to PXN VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

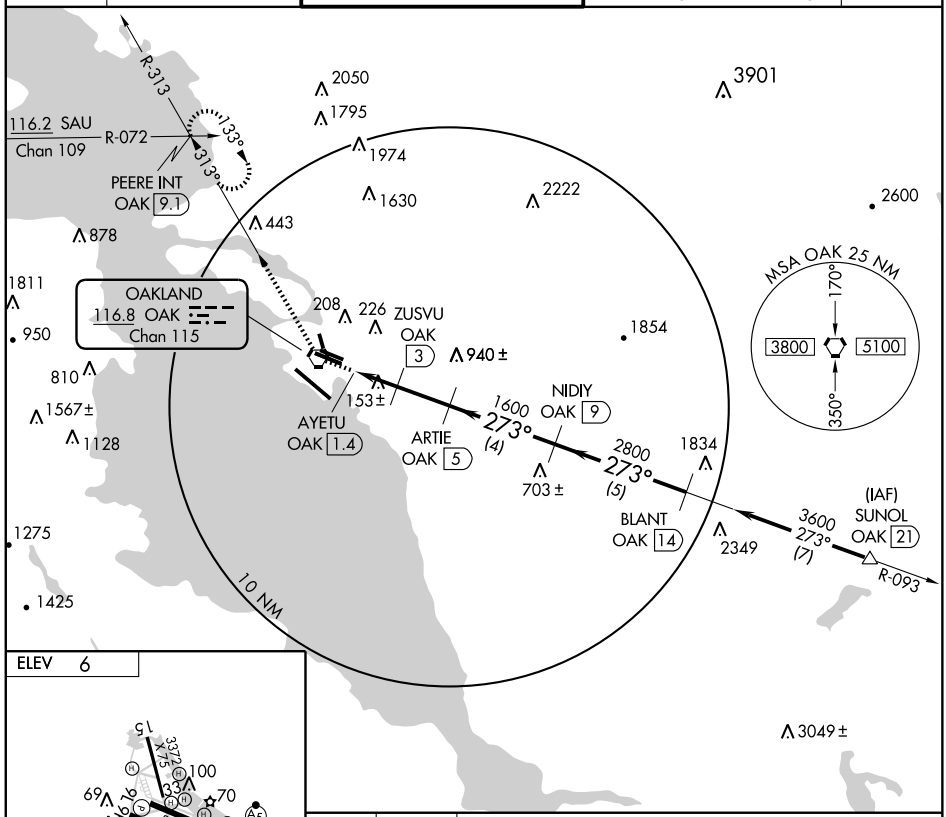
VORTAC OAK	APP CRS	Rwy Idg	6213
116.8	273°	TDZE	5
Chan 115		Apt Elev	6

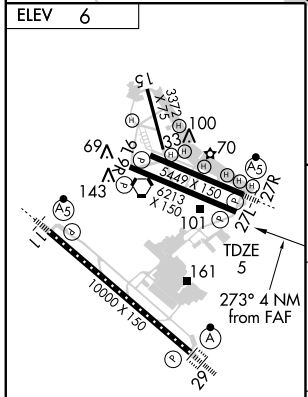
VOR/DME RWY 27L

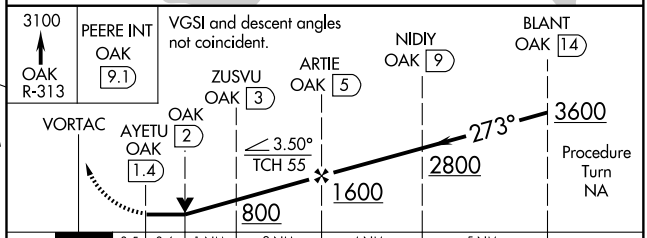
OAKLAND/METROPOLITAN OAKLAND INTL (OAK)

MISSED APPROACH: Climb to 3100 via OAK R-313 to PEERE Int/OAK 9.1 DME and hold.

ATIS	NORCAL APP CON	OAKLAND TOWER		GND CON		CLNC DEL
		(Rwys 9-27, 15-33)	(Rwy 11-29)	(Rwys 9-27, 15-33)	(Rwy 11-29)	
133.775	125.35 310.8 354.1	118.3 291.65	127.2 256.9	121.9	121.75	121.1







CATEGORY	A	B	C	D
S-27L	420/50 415 (500-1)		420/60 415 (500-1¼)	
CIRCLING	520-1 514 (600-1)	540-1 534 (600-1)	540-1½ 534 (600-1½)	560-2 554 (600-2)

TDZ/CL Rwy 29
MIRL Rwy 15-33
REIL Rwy 9R
HIRL Rwys 11-29, 9L-27R, and 9R-27L

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC OAK	APP CRS	Rwy Idg	6213
116.8	108°	TDZE	5
Chan 115		Apt Elev	6

VOR RWY 9R

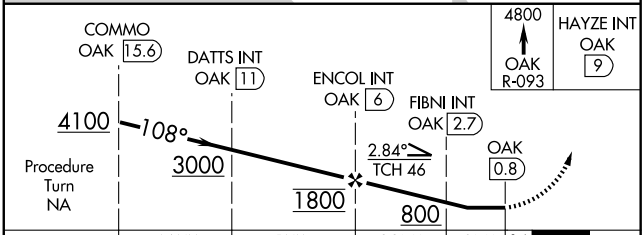
OAKLAND/ METROPOLITAN OAKLAND INTL (OAK)

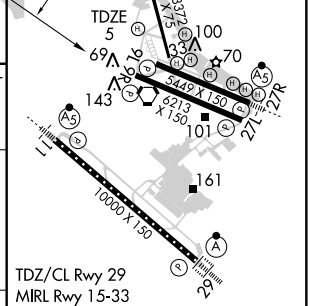
MISSED APPROACH: Climb to 4800 via OAK R-093 to HAYZE Int/OAK 9 DME and hold.

ATIS	NORCAL APP CON	OAKLAND TOWER		GND CON		CLNC DEL
		(Rwys 9-27, 15-33)	(Rwy 11-29)	(Rwys 9-27, 15-33)	(Rwy 11-29)	
133.775	125.35 310.8 354.1	118.3 291.65	127.2 256.9	121.9	121.75	121.1

Procedure NA for arrivals at MICRA via V107-301 westbound.

4100 to Commo
108° (8.8)
(IAF) MICRA
2600
COMMO OAK 15.6
R-288
R-035
3000
108° (4.6)
DATTS INT OAK 11
1800
108° (5)
ENCOL INT OAK 6
FIBNI INT OAK 2.7
SAUSALITO 116.2 SAU Chan 109
OAKLAND 116.8 OAK Chan 115
R-335
R-356
R-015
R-329
R-093
093°
273°
HAYZE INT OAK 9
703 ±
114.1 SJC Chan 88
10 NM
MSA OAK 25 NM
170°
350°
3800
5100
SAN FRANCISCO 115.8 SFO Chan 105
2050
1795
1974
1630
2222
443
878
1811
950
810
1567±
1128
1275
1425
1898
1993
2026
208±
208
226
940 ±
1854



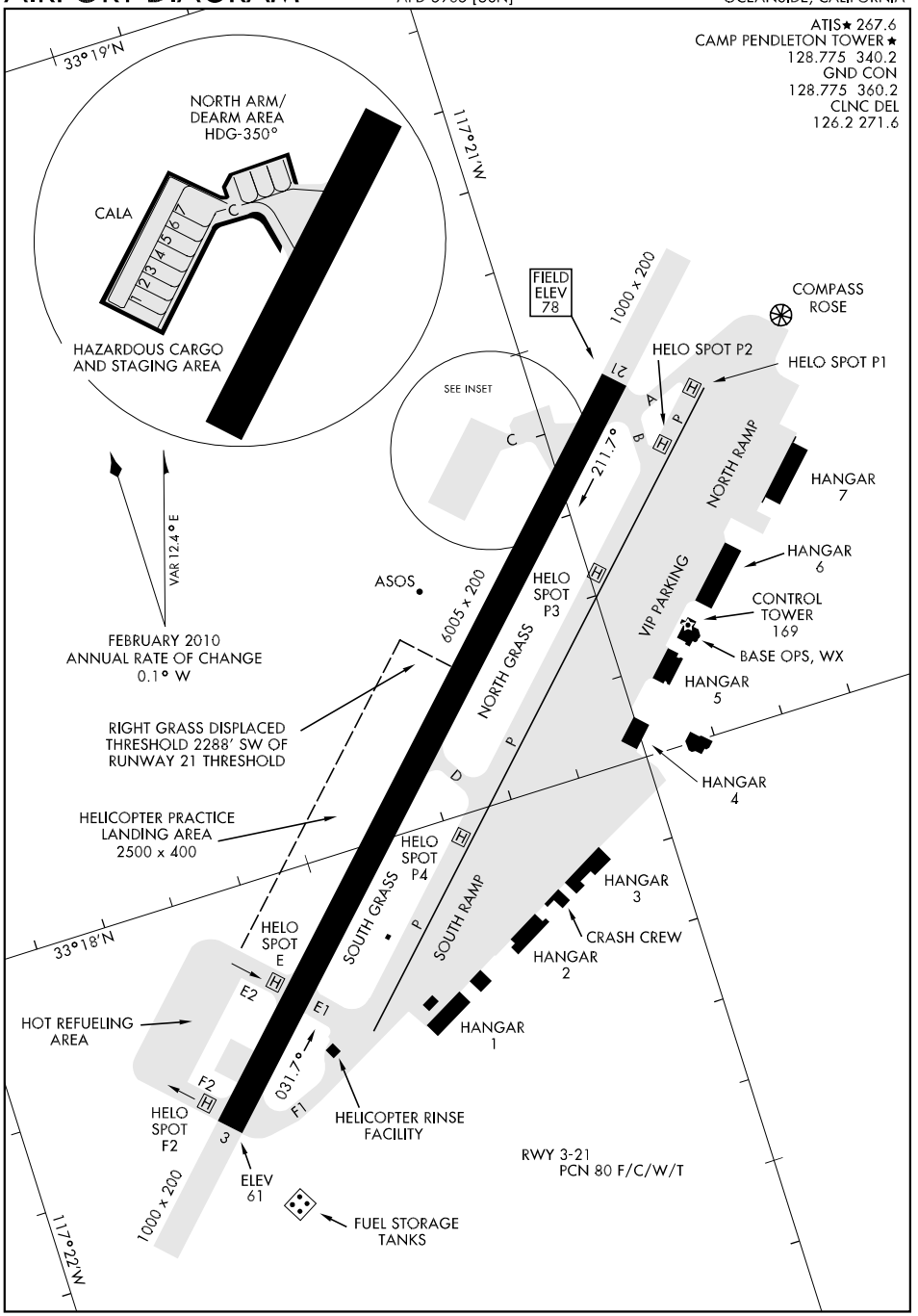


CATEGORY	A	B	C	D
S-9R	460-1 455 (500-1)		460-1¼ 455 (500-1¼)	460-1½ 455 (500-1½)
CIRCLING	520-1 514 (600-1)	540-1 534 (600-1)	540-1½ 534 (600-1½)	560-2 554 (600-2)

FAF to MAP 5.2 NM

Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

SW-2, 14 JAN 2010 to 11 FEB 2010



SW-3, 14 JAN 2010 to 11 FEB 2010

BEACH-FIVE DEPARTURE (BECH 5 • OCN)(PILOT NAV)

OCEANSIDE, CALIFORNIA

SL-5985 [USN]

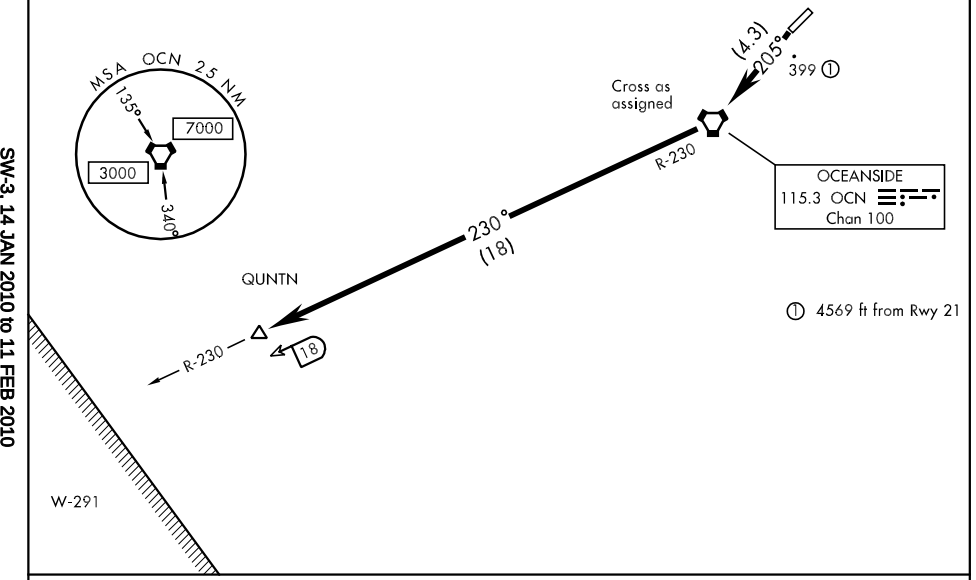
Rwy	Knots	60	120	180	240
21 *	V/V(fpm)	430	860	1290	1720

* Minimum Climb Rate to 800

(800-2 ceiling and vis authorized in lieu of Minimum Climb Rate)

ATIS ★267.6
CLNC DEL
126.2 271.6
GND CON
128.775 360.2
CAMP PENDLETON TOWER ★
128.775 340.2
SOCAL DEP CON
127.3 323.0

MILITARY USE ONLY



SW-3, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 21: Climb direct to OCN. Cross OCN at assigned altitude.

QUINTON TRANSITION (BECH 5 • QUNTN): Fly OCN R-230 to 18 DME (QUNTN).

ATIS ★267.6
CLNC DEL
126.2 271.6
GND CON
128.775 360.2
CAMP PENDLETON TOWER ★
128.775 340.2
SOCAL DEP CON
127.3 323.0

SL-5985 [USN]

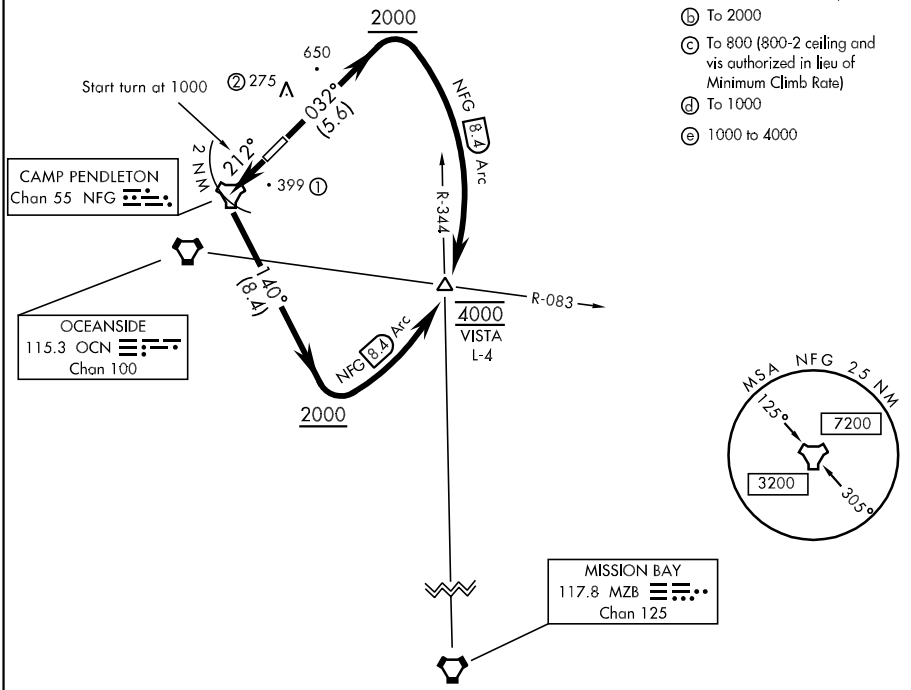
MILITARY USE ONLY

Rwy	Knots	60	120	180	240
*3 ⓐ	V/V(fpm)	320	640	960	1280
†3 ⓑ	V/V(fpm)	350	700	1050	1400
*21 ⓒ	V/V(fpm)	430	860	1290	1720
†21 ⓓ	V/V(fpm)	470	940	1410	1880
†21 ⓔ	V/V(fpm)	220	440	660	880

* Minimum † ATC Climb Rate

① 5470 ft from Rwy 21
② 4680 ft from Rwy 3

ⓐ To 900 (800-2 ceiling and vis authorized in lieu of Minimum Climb Rate)
ⓑ To 2000
ⓒ To 800 (800-2 ceiling and vis authorized in lieu of Minimum Climb Rate)
ⓓ To 1000
ⓔ 1000 to 4000



SW-3, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3: Climb to 2000 via track 032°. Join the NFG TACAN 8.4 DME ARC at or above 2000 and arc E to VISTA int. Cross VISTA INT at 4000 or assigned altitude.

TAKE-OFF RWY 21: Climb to 1000 within 2 NM via track 212° then turn left heading 140 . Join the NFG TACAN 8.4 DME arc at or above 2000 and arc E to VISTA int. Cross VISTA INT at 4000 or assigned altitude.

COPTER TACAN RWY 21

TACAN	APCH CRS	Rwy ldg / TDZE / Arpt Elev
NFG Chan 55	212°	6005 / 78 / 78

AL-5985 [USN] CAMP PENDLETON MCAS (MUNN FIELD) (KNFG)

* When ALS inop, increase vis to 1 mile.

SALSF

MISSED APPROACH: Climb to 2000 via NFG TACAN R-032 and R-212 to AMFIB (NFG R-212/8.2 DME) and hold.

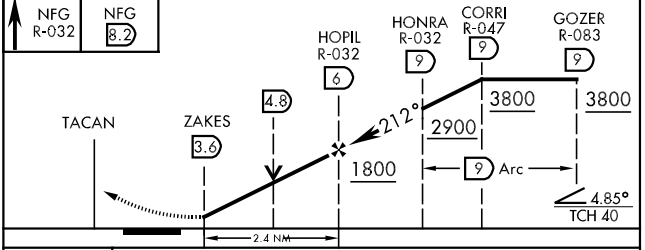
ATIS ★	SOCAL APP CON	CAMP PENDLETON TOWER ★	GND CON	CLNC DEL	ASR/PAR
267.6	127.3 323.0	128.775 340.2	128.775 360.2	126.2 271.6	

MSA NFG 25 NM
125°
7200
3200
305°

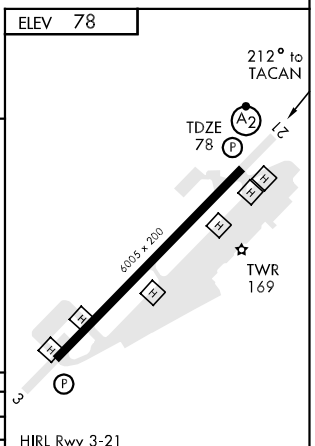
HONRA NFG 9
R-032
HOPIL NFG 6
212°
(IAF) CORRI NFG 9
3800
NFG 9 Arc
CAMP PENDLETON Chan 55 NFG
643
R-047
NFG 11
R-083
083°
263°
(IAF) GOZER NFG 9
3800
Min holding alt 3800
3800
069°
(10.6)
OCEANSIDE
NFG 12.2
212°
R-212
032°
AMFIB NFG 8.2
5 NM
Min holding alt 2000

EMERG SAFE ALT 100 NM 13,600

2000
NFG R-032
AMFIB NFG 8.2
VDA and VGSI not coincident.



ELEV 78



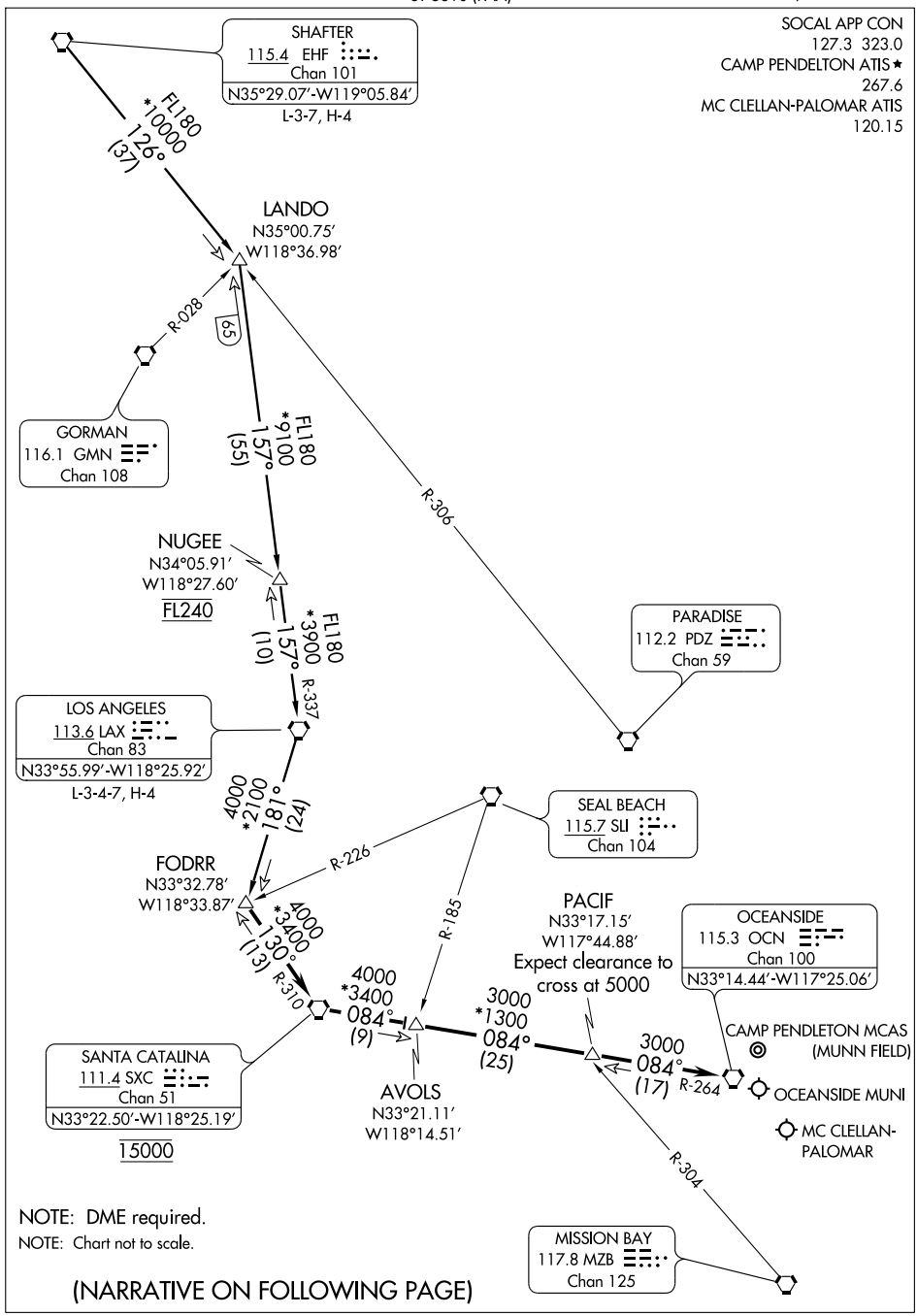
CATEGORY	COPTER		
H-21*	900-¾	822	(900-¾)
CIRCLING	NOT AUTHORIZED		

SW-3, 14 JAN 2010 to 11 FEB 2010

FODRR ONE ARRIVAL

ST-5310 (FAA)

CARLSBAD, CALIFORNIA



NOTE: DME required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

ARRIVAL ROUTE DESCRIPTION

LOS ANGELES TRANSITION (LAX.FODRR1): From over LAX VORTAC via LAX R-181 to FODRR INT/DME FIX. Thence....
SHAFTER TRANSITION (EHF.FODRR1): From over EHF VORTAC via EHF R-126 and LAX R-337 to LAX VORTAC, then via LAX R-181 to FODRR INT/DME FIX. Thence....

....From over FODRR INT/DME FIX via SXC R-310 to SXC VORTAC, cross SXC VORTAC at 15000, then via SXC R-084 to AVOLS INT/DME FIX, then via SXC R-084 and OCN R-264 to PACIF INT/DME FIX, then via OCN R-264 to OCN VORTAC. Thence....

....LANDING CARLSBAD/MC CLELLAN-PALOMAR: From over OCN VORTAC expect the ILS or LOC RWY 24 approach.
....LANDING CAMP PENDLETON MCAS (MUNN FIELD): From over OCN VORTAC expect the VOR/DME or TACAN RWY 21 approach.
....LANDING OCEANSIDE MUNI: From over OCN VORTAC expect the VOR-A approach.

SW-3. 14 JAN 2010 to 11 FEB 2010

ATIS ★267.6
CLNC DEL
126.2 271.6
GND CON
128.775 360.2
CAMP PENDLETON TOWER ★
128.775 340.2
SOCAL DEP CON
127.3 323.0

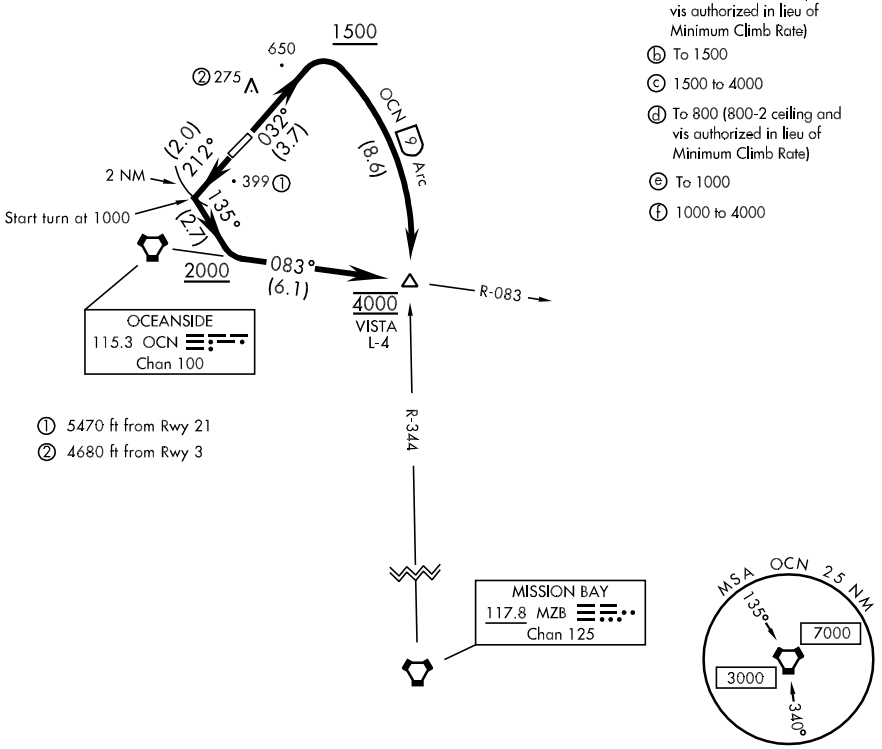
SL-5985 [USN]

MILITARY USE ONLY

Rwy	Knots	60	120	180	240
✱3 ⓐ	V/V(fpm)	320	640	960	1280
† 3 ⓑ	V/V(fpm)	390	780	1170	1560
† 3 ⓒ	V/V(fpm)	290	580	870	1160
✱21 ⓓ	V/V(fpm)	430	860	1290	1720
†21 ⓔ	V/V(fpm)	470	940	1410	1880
†21 ⓕ	V/V(fpm)	370	740	1110	1480

✱ Minimum climb rate † ATC Climb Rate

ⓐ To 900 (800-2 ceiling and vis authorized in lieu of Minimum Climb Rate)
ⓑ To 1500
ⓒ 1500 to 4000
ⓓ To 800 (800-2 ceiling and vis authorized in lieu of Minimum Climb Rate)
ⓔ To 1000
ⓕ 1000 to 4000



① 5470 ft from Rwy 21
② 4680 ft from Rwy 3

SW-3, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3: Climb to 1500 via track 032°. Join the OCN VORTAC 9 DME arc at or above 1500 and arc E to VISTA int. Cross VISTA at 4000 or assigned altitude.

TAKE-OFF RWY 21: Climb to 1000 within 2 NM via track 212° turn left heading 135°, to join the OCN VORTAC R-083 at or above 2000 to VISTA int. Cross VISTA at 4000 or assigned altitude.

LIMA SIX DEPARTURE (LIMA • 6)(VECTOR)

OCEANSIDE, CALIFORNIA

SL-5985 [USN]

ATIS ★267.6
CLNC DEL
126.2 271.6
GND CON
128.775 360.2
CAMP PENDLETON TOWER ★
128.775 340.2
SOCAL DEP CON
127.3 323.0

MILITARY USE ONLY
RADAR REQUIRED

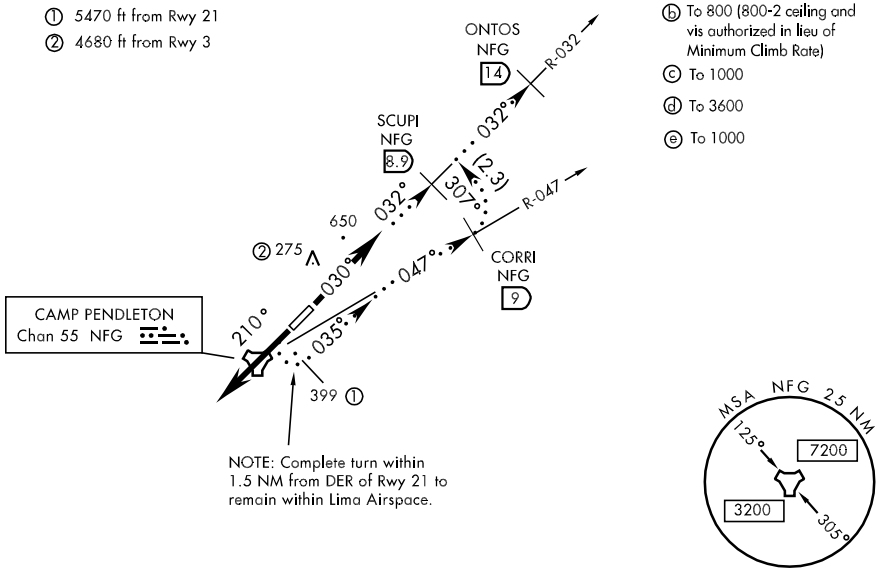
Rwy	Knots	60	120	180	240
* 3 (a)	V/V(fpm)	320	640	960	1280
*21 (b)	V/V(fpm)	430	860	1290	1720
† 21 (c)	V/V(fpm)	630	1260	1890	2520
** 3 (d)	V/V(fpm)	580	1160	1740	2320
** 21 (e)	V/V(fpm)	630	1260	1890	2520

* Minimum † ATC Climb Rate
** Lost Communications

(a) To 900 (800-2 ceiling and vis authorized in lieu of Minimum Climb Rate)
(b) To 800 (800-2 ceiling and vis authorized in lieu of Minimum Climb Rate)
(c) To 1000
(d) To 3600
(e) To 1000

Procedure restricted to 150 KIAS max.

① 5470 ft from Rwy 21
② 4680 ft from Rwy 3



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3 (LIMA 6•ONTOS): Climb heading 030° for radar vectors.

TAKE-OFF RWY 21 (LIMA 6•CORRI): Climb heading 210° for radar vectors.

NOTE: Vectors not auth NW of Rwy 3-21. No turns auth prior to reaching 1000 ft.

Lost Communications:

Runway 3: Climb to 3600 via heading 030°. Intercept NFG R-032 to SCUPI (NFG R-032/8.9 DME).

Runway 21: Climb to 1000 via heading 210°. Then climbing left turn to 3500 via heading 035° prior to NFG 0.2 DME to intercept NFG R-047 to CORRI (NFG R-047/9 DME).†

† F/W: At CORRI, climbing left turn to 5000 heading 307° to intercept NFG R-032 to ONTOS (NFG R-032/14 DME). Proceed with TACAN Z RWY 21.
† Copter: At CORRI, proceed with COPTER TACAN RWY 21.

LIMA SIX DEPARTURE (LIMA • 6)(VECTOR)
OCEANSIDE, CALIFORNIA

RNAV (GPS) RWY 21

AL-5985 [USN] CAMP PENDLETON MCAS (MUNN FIELD) (KNFG)

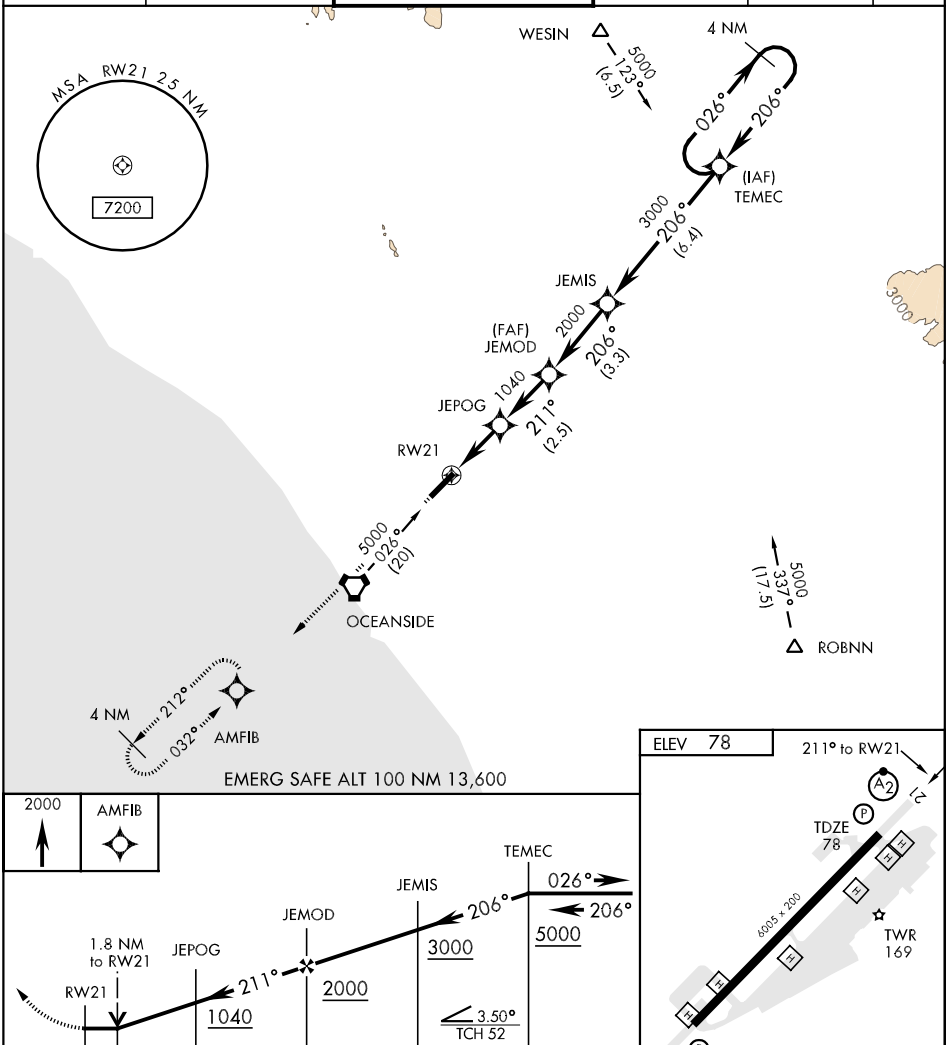
APCH CRS	Rwy ldg	TDZE	Arpt Elev
211°	6005	78	78

* When ALS inop, increase vis CAT AB to 1 mile, CAT C to 2 miles, CAT D to 2¼ miles.
** Circling RWY 3 NA at night.

SALSF

MISSED APPROACH: Climb to 2000 direct AMFIB and hold.

ATIS ★	SOCAL APP CON	CAMP PENDLETON TOWER ★	GND CON	CLNC DEL	ASR/PAR
267.6	127.3 323.0	128.775 340.2	128.775 360.2	126.2 271.6	



CATEGORY	A	B	C	D
LNAV MDA *	800-¾ 722 (800-¾)		800-1¾ 722 (800-1¾)	800-2 722 (800-2)
CIRCLING **	960-1¼ 882 (900-1¼)	1080-1½ 1002 (1100-1½)	1180-3 1102 (1200-3)	1200-3 1122 (1200-3)

SW-3, 14 JAN 2010 to 11 FEB 2010

TACAN RWY 3

TACAN NFG Chan 55	APCH CRS 032°	Rwy ldg 6005 TDZE 67 Arpt Elev 78

AL-5985 [USN] CAMP PENDLETON MCAS (MUNN FIELD) (KNFG)

Procedure not authorized at night when VGSI inop

* MISSED APPROACH: Climb to 3700 via NFG TACAN R-032 to SCUPI (NFG R-032/8.9 DME) and hold.

ATIS *	SOCAL APP CON	CAMP PENDLETON TOWER *	GND CON	CLNC DEL	ASR/PAR
267.6	127.3 323.0	128.775 340.2	128.775 360.2	126.2 271.6	

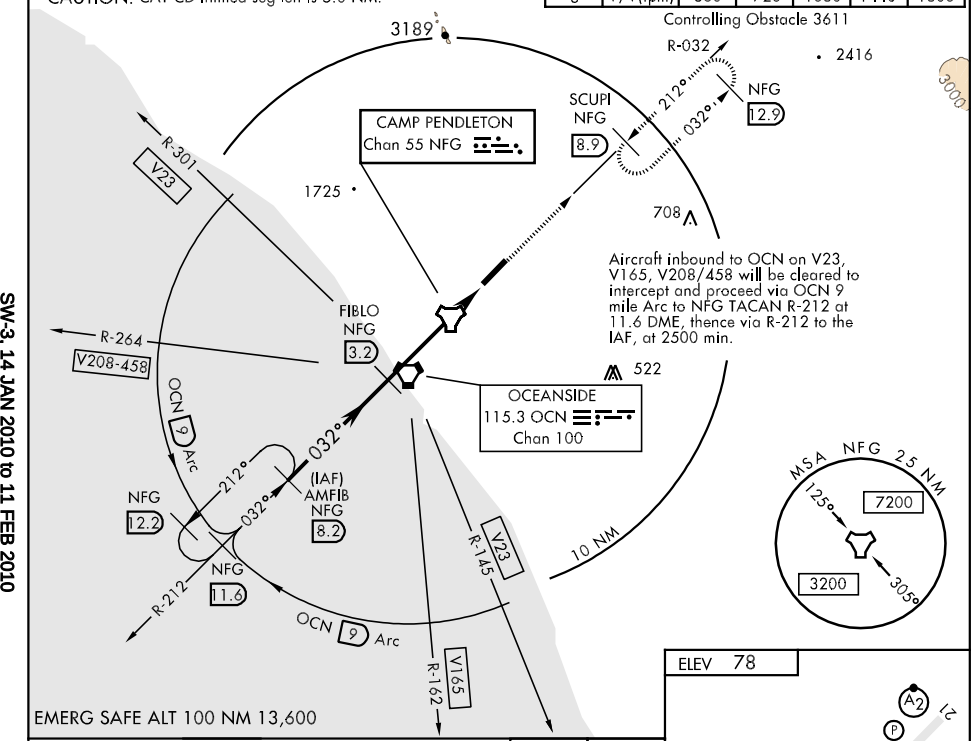
CAUTION: High terrain on final approach. Do not descend below MDA prior to MAP.

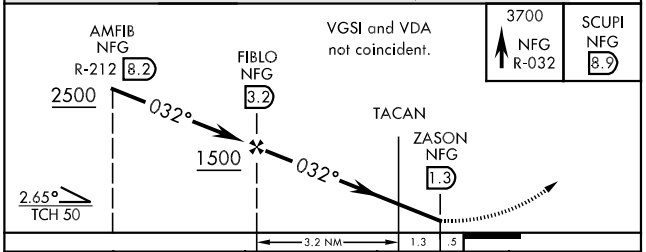
CAUTION: CAT CD intmed seg len is 5.0 NM.

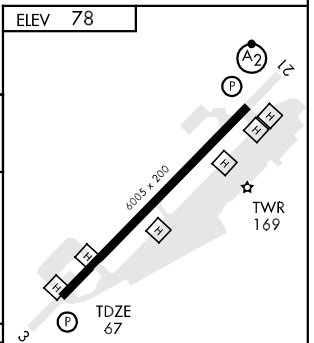
* CAUTION: Missed Approach Minimum Climb Rate to 3700

Rwy	Knots	60	120	180	240	300
3	V/V(fpm)	360	720	1080	1440	1800

Controlling Obstacle 3611







CATEGORY	A	B	C	D
S-3	980-1¼ 913 (1000-1¼)		980-2¾ 913 (1000-2¾)	980-3 913 (1000-3)
CIRCLING	980-1¼ 902 (1000-1¼)	1080-1½ 1002 (1100-1½)	1180-3 1102 (1200-3)	1200-3 1122 (1200-3)

SW-3, 14 JAN 2010 to 11 FEB 2010

TACAN Z RWY 21

TACAN	APCH CRS	Rwy ldg	6005
Chan 55	212°	TDZE	78
		Arpt Elev	78

AL-5985 [USN] CAMP PENDLETON MCAS (MUNN FIELD) (KNFG)

* When ALS inop, increase vis CAT A to 1 mile, CAT B to 1¼ miles, CAT C to 2½ miles, CAT D to 2¾ miles.
** Circling Rwy 3 not authorized at night.

SALSF (A2)

MISSED APPROACH: Climb to 2000 via NFG TACAN R-032 and R-212 to AMFIB (NFG R-212/8.2 DME) and hold.

ATIS ★	SOCAL APP CON	CAMP PENDLETON TOWER ★	GND CON	CLNC DEL	ASR/PAR
267.6	127.3 323.0	128.775 340.2	128.775 360.2	126.2 271.6	

MSA NFG 25 NM
125° 7200
305° 3200

3189

CAUTION:
CAT CD intmed seg len is 5.1 NM.

NFG 18
R-032
032°
212°
Min holding alt 3800
(IAF) ONTOS NFG 14
212°
SCUPI NFG 8.9
WODUN NFG 6.7
1725
650
708
3000
NFG 14 Arc
3800
CAMP PENDLETON Chan 55 NFG
OCEANSIDE
8000
083°
(19.8)
522
R-092
Min holding alt 8000
NFG 22.9
092°
272°
NFG 12.2
212°
032°
AMFIB NFG 8.2
R-212
10 NM
TUKVE NFG 14
8000
(IAF) BONDO NFG 18.7

EMERG SAFE ALT 100 NM 13,600

2000 NFG R-032 | AMFIB NFG 8.2

TACAN
ZAKES 3.6
4.8
WODUN 6.7
SCUPI 8.9
1580
212°
2400
ONTOS 14
3800
3.44°
TCH 53
3.1 NM
2.2 NM

ELEV 78
212° to TACAN
TDZE 78 (A2) (P)
6005 x 200
TWR 169
HIRL Rwy 3-21

CATEGORY	A	B	C	D
S-21*	900-¾ 822 (900-¾)	900-1 822 (900-1)	900-2¼ 822 (900-2¼)	900-2½ 822 (900-2½)
CIRCLING**	960-1¼ 882 (900-1¼)	1080-1½ 1002 (1100-1½)	1180-3 1102 (1200-3)	1200-3 1122 (1200-3)

VOR/DME or TACAN Y RWY 21

AL-5985 [USN] CAMP PENDLETON MCAS (MUNN FIELD) (KNFG)

VORTAC OCN	APCH CRS	Rwy ldg	6005
115.3	206°	TDZE	78
Chan 100		Arpt Elev	78

* When ALS inop, increase vis CAT AB to 1¼ mile, CAT C to 2¾ miles, CAT D to 3 miles.
** Circling Rwy 3 not authorized at night.

SALSF

MISSED APPROACH: Climb to 2000 via OCN VORTAC R-026 and R-213 to AMFIB (OCN R-213/5.7 DME) and hold.

ATIS ★	SOCAL APP CON	CAMP PENDLETON TOWER ★	GND CON	CLNC DEL	ASR/PAR
267.6	127.3 323.0	128.775 340.2	128.775 360.2	126.2 271.6	

MSA OCN 25 NM
135°
7000
3000
340°

(IAF) TEMEC OCN 20
Min holding alt 5000
R-026
CUPIS OCN 16
206°
026°
OCN 19
WODOR OCN 20
R-042
CEGAB OCN 12
CEBSI OCN 10
CABEK OCN 9
5800
3000
1725
650
OCN 20 Arc
OCN 24
083°
263°
R-083
8000 (IAF) Min holding
BONDO alt 8000
OCN 20

OCEANSIDE
115.3 OCN
Chan 100

8000
083°
(19.8)
522

OCN 9.7
213°
033°
AMFIB OCN 5.7
R-213
10 NM

EMERG SAFE ALT 100 NM 13,600

2000
OCN R-026
AMFIB OCN 5.7

VORTAC
CEDVU 6
7.7
CABEK 9
CEBSI 10
CEGAB 12
CUPIS 16
TEMEC 20
206°
1500
1900
2400
3600
5000
3.49°
TCH 53
.7
3 NM
1 NM

ELEV 78
206° 4.7 NM from FAF
TDZE 78
21
6005 x 200
TWR 169
HIRL Rwy 3-21

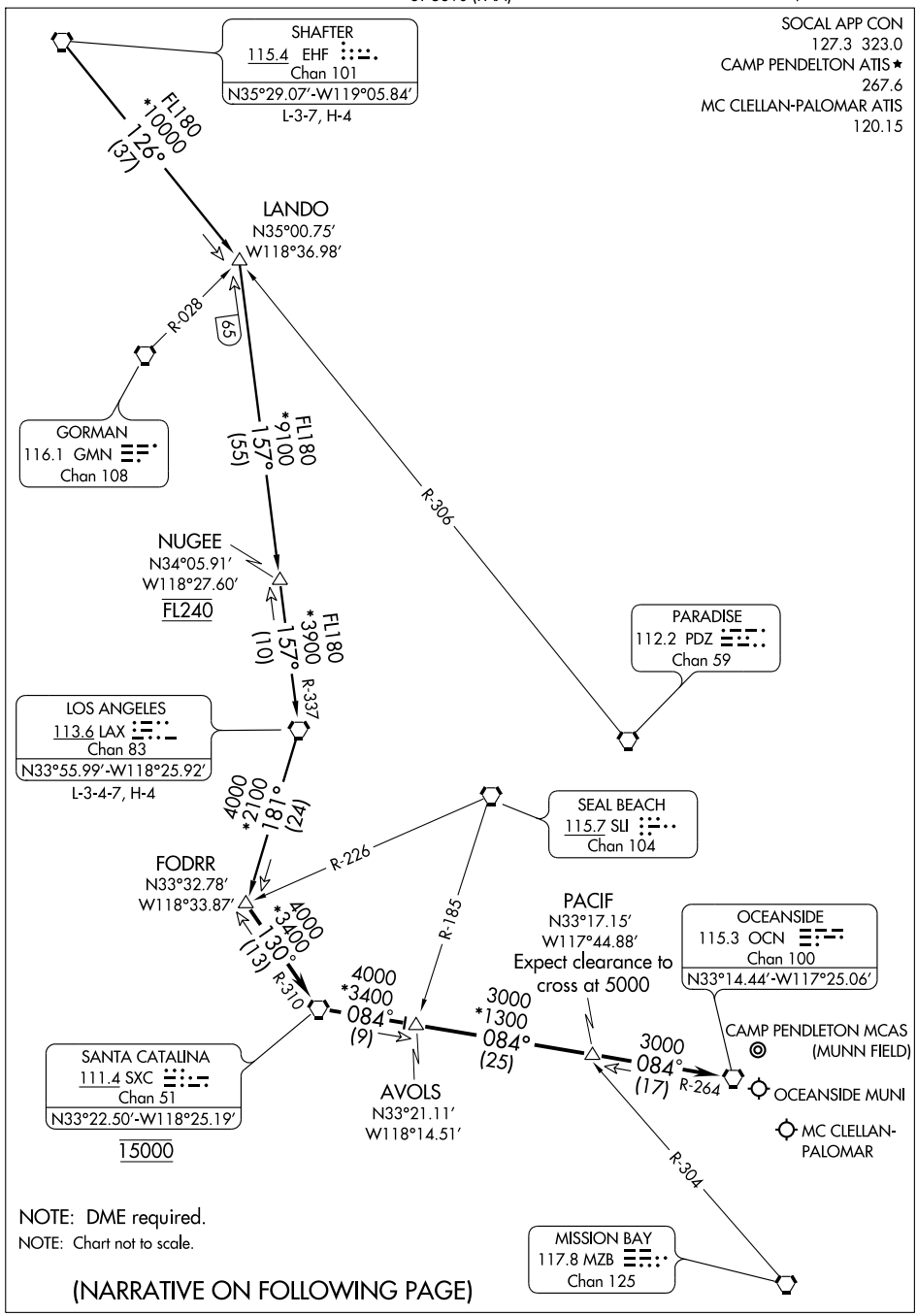
CATEGORY	A	B	C	D
S-21*	1020-1 942 (1000-1)		1020-2½ 942 (1000-2½)	1020-2¾ 942 (1000-2¾)
CIRCLING**	1020-1¼ 942 (1000-1¼)	1080-1½ 1002 (1100-1½)	1180-3 1102 (1200-3)	1200-3 1122 (1200-3)

SW-3, 14 JAN 2010 to 11 FEB 2010

FODRR ONE ARRIVAL

ST-5310 (FAA)

CARLSBAD, CALIFORNIA



NOTE: DME required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

ARRIVAL ROUTE DESCRIPTION

LOS ANGELES TRANSITION (LAX.FODRR1): From over LAX VORTAC via LAX R-181 to FODRR INT/DME FIX. Thence....
SHAFTER TRANSITION (EHF.FODRR1): From over EHF VORTAC via EHF R-126 and LAX R-337 to LAX VORTAC, then via LAX R-181 to FODRR INT/DME FIX. Thence....

....From over FODRR INT/DME FIX via SXC R-310 to SXC VORTAC, cross SXC VORTAC at 15000, then via SXC R-084 to AVOLS INT/DME FIX, then via SXC R-084 and OCN R-264 to PACIF INT/DME FIX, then via OCN R-264 to OCN VORTAC. Thence....

....LANDING CARLSBAD/MC CLELLAN-PALOMAR: From over OCN VORTAC expect the ILS or LOC RWY 24 approach.
....LANDING CAMP PENDLETON MCAS (MUNN FIELD): From over OCN VORTAC expect the VOR/DME or TACAN RWY 21 approach.
....LANDING OCEANSIDE MUNI: From over OCN VORTAC expect the VOR-A approach.

SW-3. 14 JAN 2010 to 11 FEB 2010

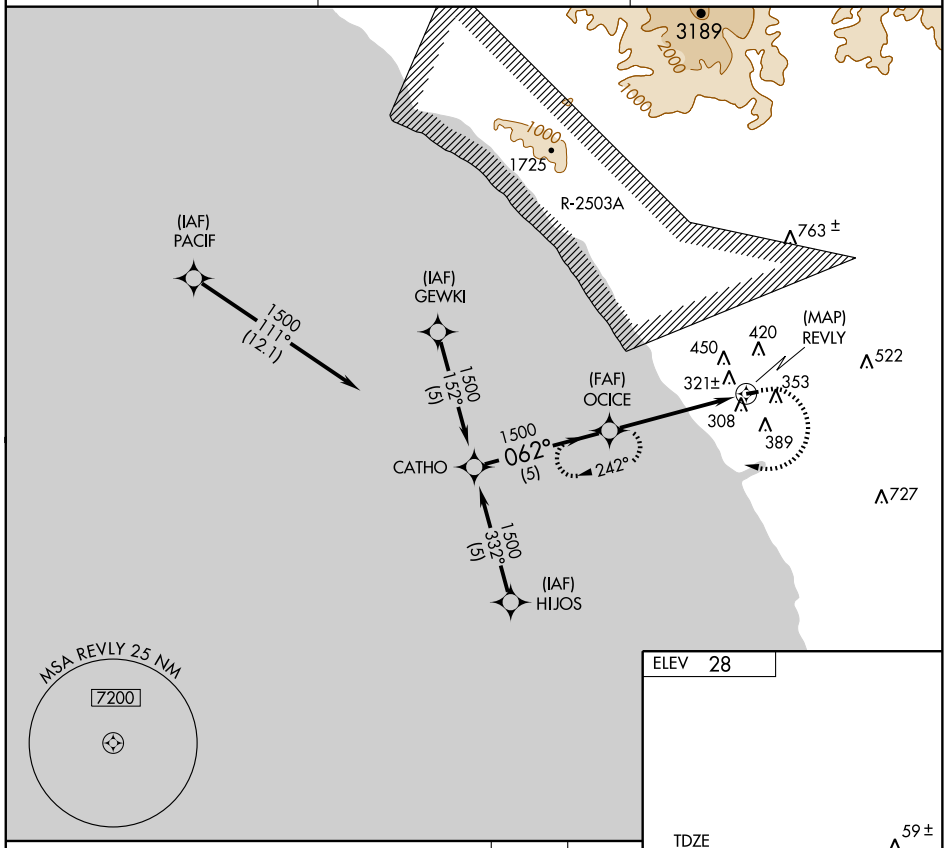
APP CRS	Rwy Idg	2712
062°	TDZE	28
	Apt Elev	28

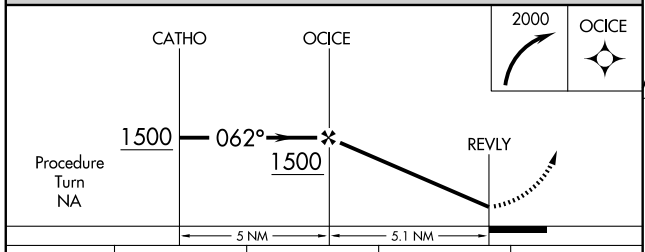
GPS RWY 6
OCEANSIDE MUNI (OKB)

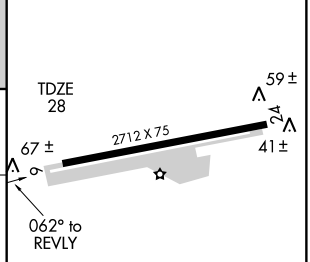
T
NA

MISSED APPROACH: Climbing right turn to 2000 direct OCICE WP and hold.

ASOS	SOCAL APP CON	UNICOM
127.8	127.3 323.0	123.0 (CTAF) L







CATEGORY	A	B	C	D
S-6	720-1	692 (700-1)	NA	
CIRCLING	880-1 852 (900-1)	880-1¼ 852 (900-1¼)	NA	

MIRL Rwy 6-24 L
REIL Rwy 24

SW-3, 14 JAN 2010 to 11 FEB 2010

OCEANSIDE, CALIFORNIA AL-5666 (FAA)

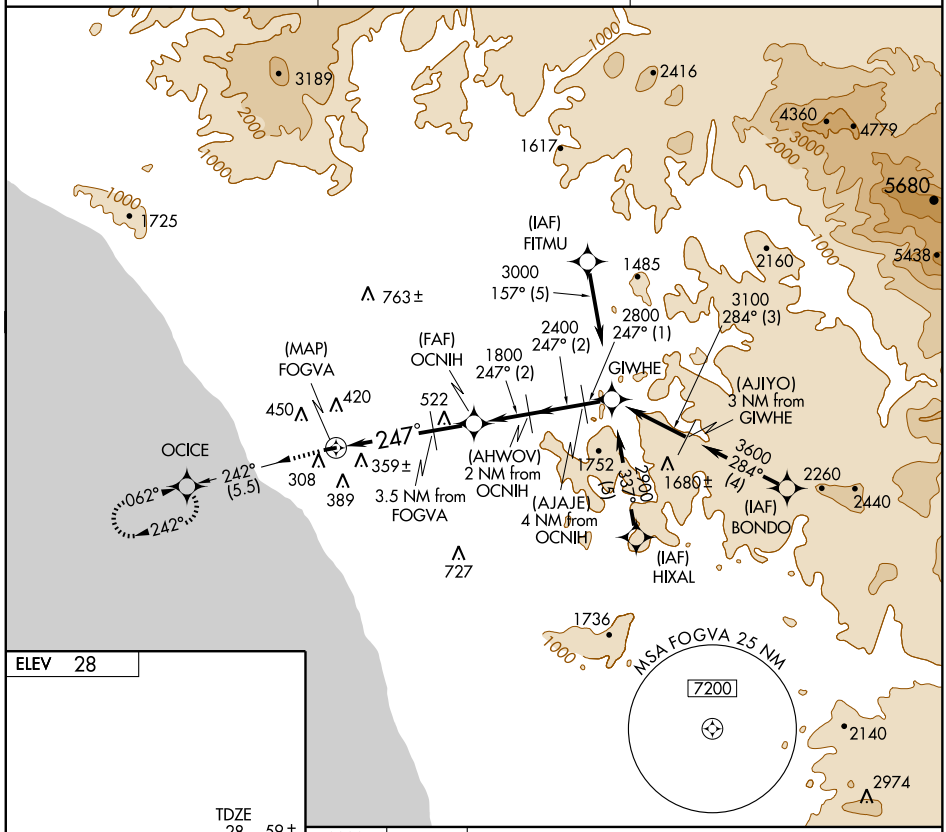
GPS RWY 24
OCEANSIDE MUNI (OKB)

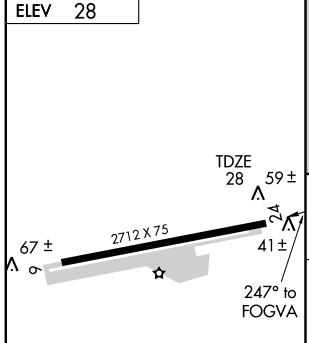
APP CRS	Rwy Idg	2712
247°	TDZE	28
	Apt Elev	28

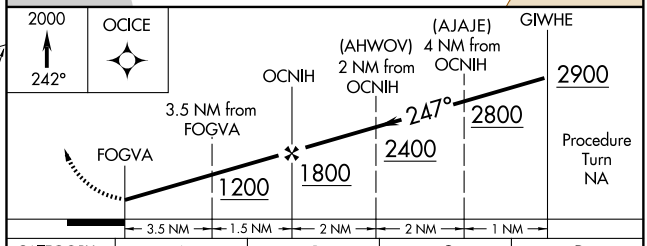
NA

MISSED APPROACH: Climb to 2000 via 242° course to OCICE WP and hold.

ASOS	SOCAL APP CON	UNICOM
127.8	127.3 323.0	123.0 (CTAF) L







CATEGORY	A	B	C	D
S-24	740-1 712 (800-1)		NA	
CIRCLING	880-1 852 (900-1)	880-1¼ 852 (900-1¼)	NA	

MIRL Rwy 6-24 L
REIL Rwy 24

SW-3, 14 JAN 2010 to 11 FEB 2010

OCEANSIDE, CALIFORNIA

AL-5666 (FAA)

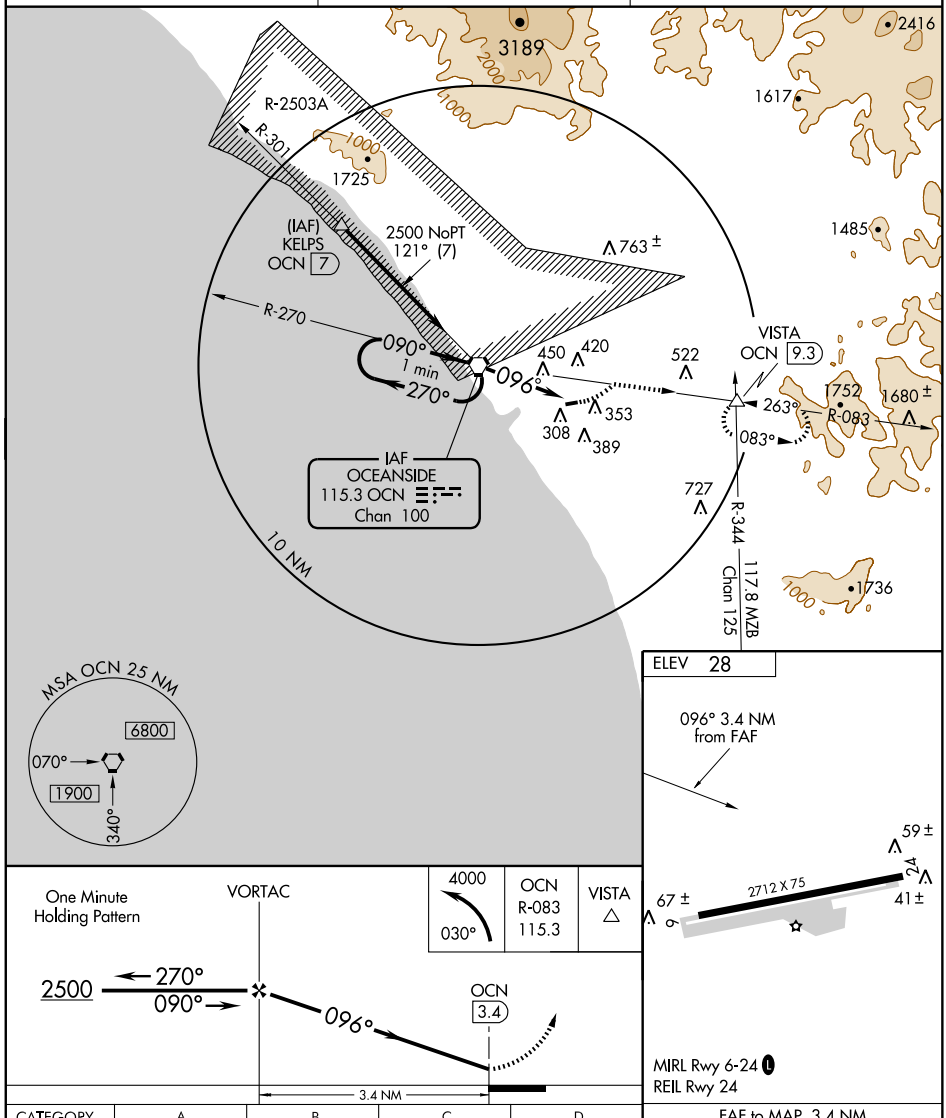
VORTAC OCN	APP CRS	Rwy Idg	N/A
115.3	096°	TDZE	N/A
Chan 100		Apt Elev	28

VOR-A

OCEANSIDE MUNI (OKB)

MISSED APPROACH: Climbing left turn to 4000 via heading 030° and OCN R-083 to VISTA Int/OCN 9.3 DME and hold.

ASOS	SOCAL APP CON	UNICOM
127.8	127.3 323.0	123.0 (CTAF) L



MIRL Rwy 6-24 L

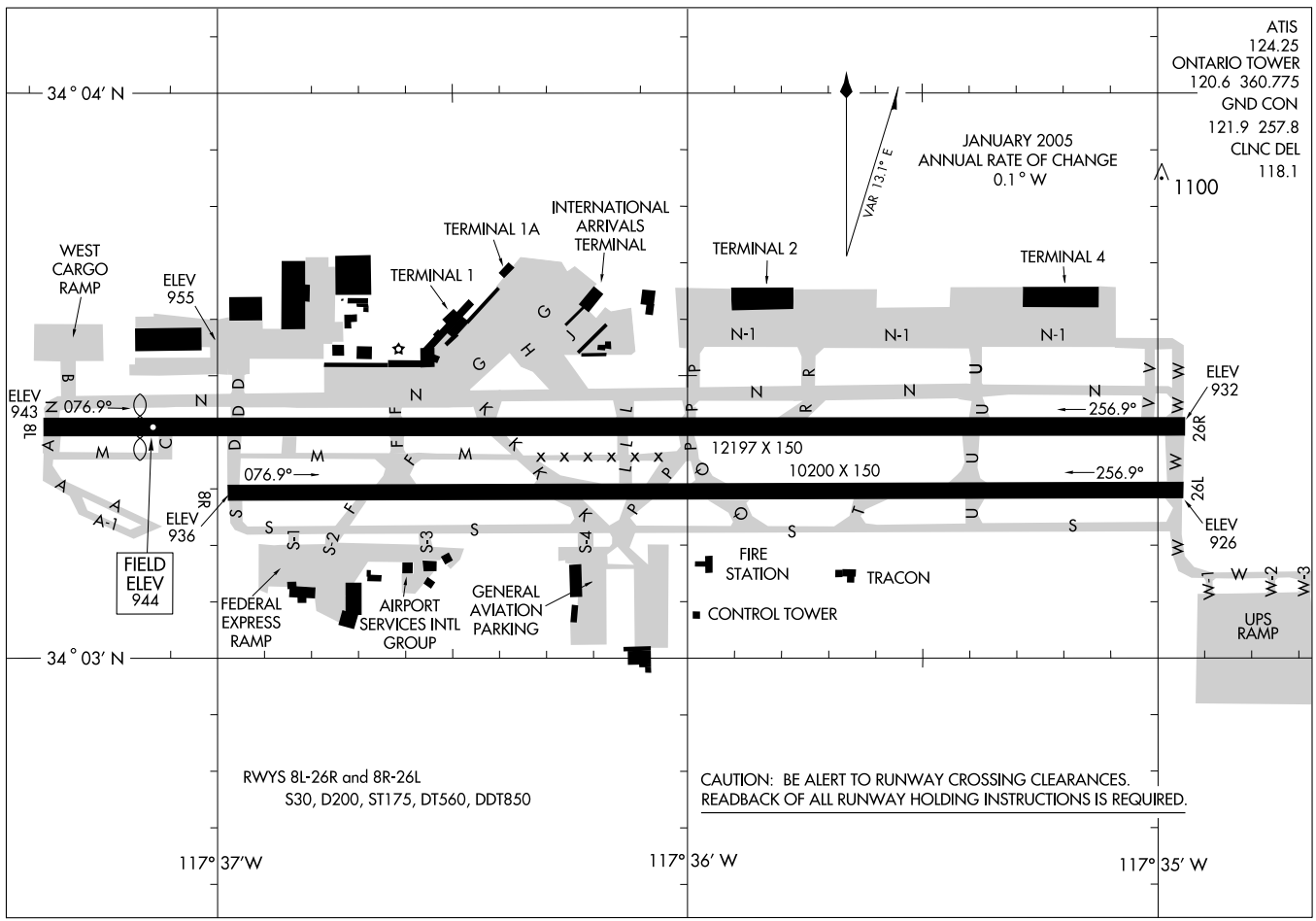
REIL Rwy 24

CATEGORY	A	B	C	D
CIRCLING	1140-1¼ 1112 (1200-1¼)	1140-1½ 1112 (1200-1½)	NA	

FAF to MAP 3.4 NM

Knots	60	90	120	150	180
Min:Sec	3:24	2:16	1:42	1:21	1:08

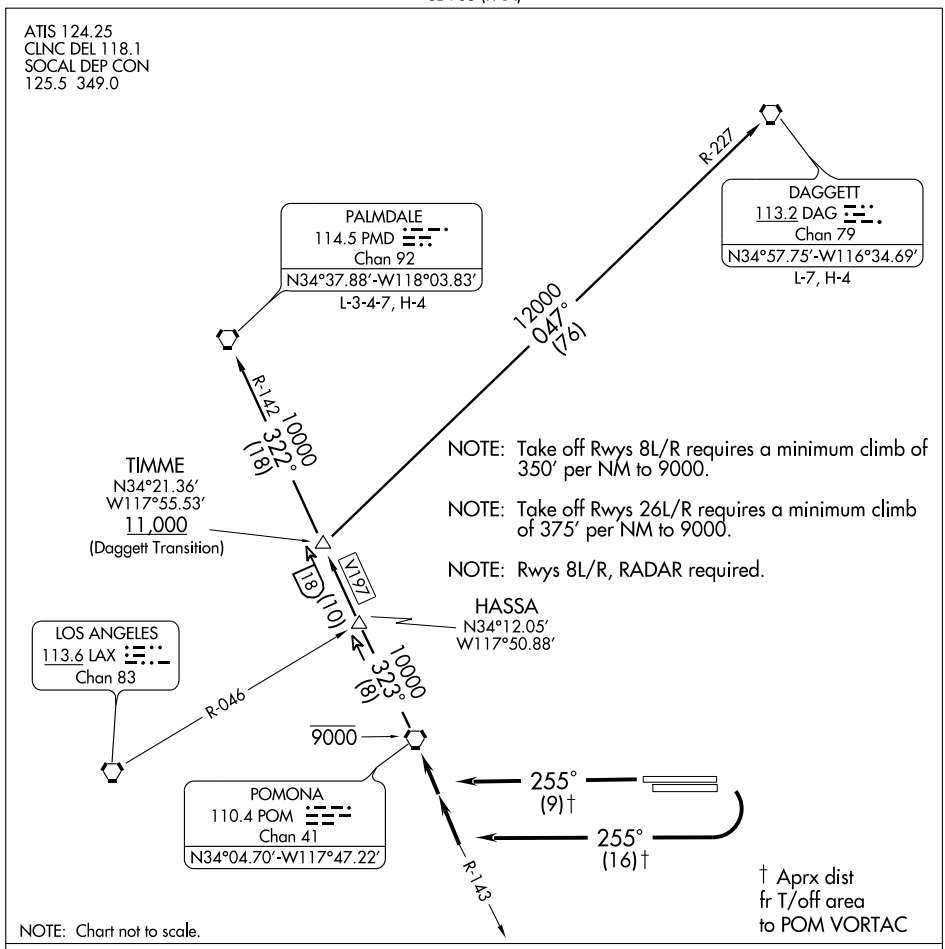
SW-3, 14 JAN 2010 to 11 FEB 2010


AIRPORT DIAGRAM
AL-965 (FAA)
ONTARIO INTL (ONT)
ONTARIO, CALIFORNIA
ATIS
124.25
ONTARIO TOWER
120.6 360.775
GND CON
121.9 257.8
CLNC DEL
118.1
34° 04′ N
34° 03′ N
117° 37′W
117° 36′ W
117° 35′ W
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1° W
VAR 13.1° E
1100
WEST CARGO RAMP
ELEV 955
TERMINAL 1A
INTERNATIONAL ARRIVALS TERMINAL
TERMINAL 1
TERMINAL 2
TERMINAL 4
ELEV 943
076.9°
256.9°
ELEV 932
26R
12197 X 150
10200 X 150
26L
ELEV 926
ELEV 936
FIELD ELEV 944
FEDERAL EXPRESS RAMP
AIRPORT SERVICES INTL GROUP
GENERAL AVIATION PARKING
FIRE STATION
TRACON
CONTROL TOWER
UPS RAMP
RWYS 8L-26R and 8R-26L
S30, D200, ST175, DT560, DDT850
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

HASSA FOUR DEPARTURE

SL-965 (FAA)

ONTARIO INTL (ONT)
ONTARIO, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 8L/R: Turn right heading 255° to intercept and proceed via POM R-143 to POM VORTAC. Thence....

TAKE-OFF RUNWAYS 26L/R: Fly heading 255° to intercept and proceed via POM R-143 to POM VORTAC. Thence....

....via (transition) or (assigned route). Cross POM VORTAC at or below 9000'.

Expect filed altitude 10 minutes after departure.

DAGGETT TRANSITION (HASSA4.DAG): From over POM VORTAC via POM R-323 and DAG R-227 to DAG VORTAC.

PALMDALE TRANSITION (HASSA4.PMD): From over PMD VORTAC via POM R-323 and PMD R-142 to PMD VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010

ONTARIO, CALIFORNIA AL-965 (FAA)

LOC I-AOD	APP CRS	Rwy Idg 8L	TDZE	Apt Elev	Rwy Idg 8R	TDZE	Apt Elev
109.7	076°	11200	944	944	10200	936	944

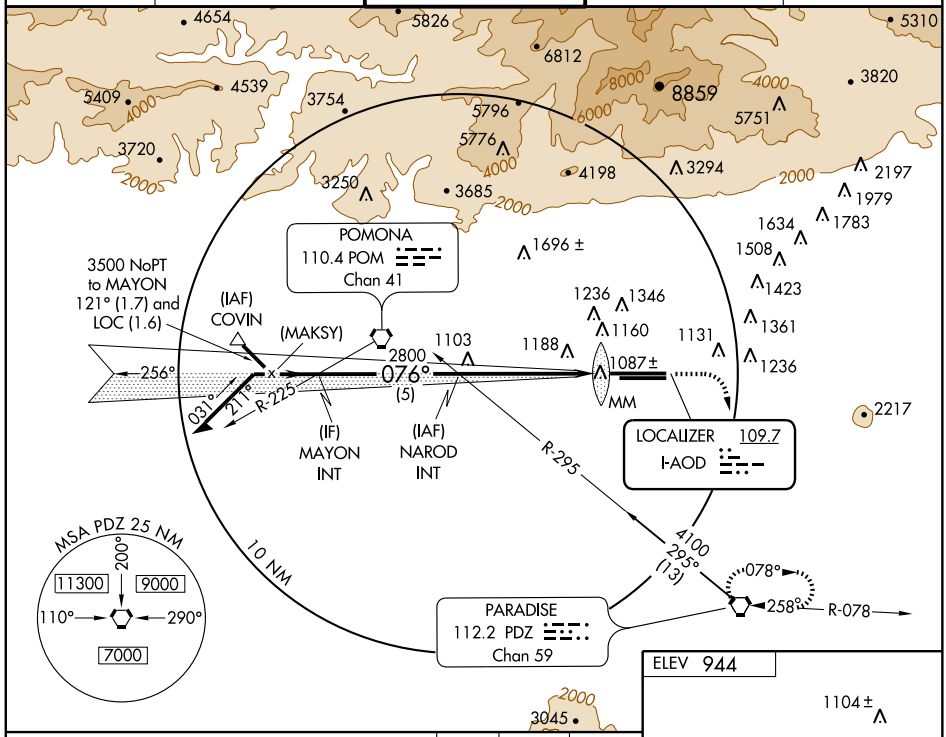
ILS or LOC RWY 8L
ONTARIO INTL (ONT)

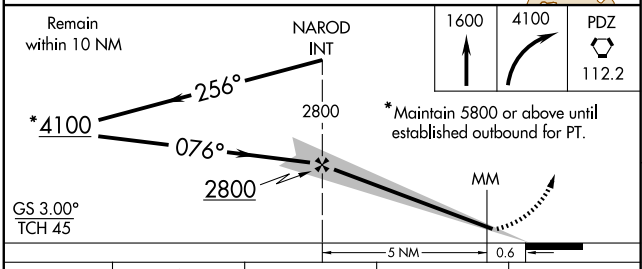
Circling NA north of Rwy 8L-26R.
RVR 1800 authorized with the use of FD or AP or HUD to DA.

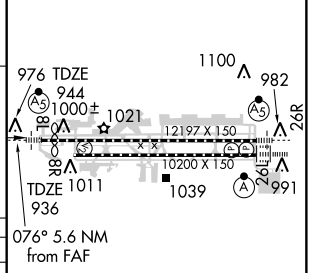
MALSR Rwy 8L

MISSED APPROACH: Climb to 1600 then climbing right turn to 4100 direct PDZ VORTAC and hold.

ATIS	SOCAL APP CON	ONTARIO TOWER	GND CON	CLNC DEL
124.25	127.25 318.2	120.6 360.775	121.9 257.8	118.1







CATEGORY	A	B	C	D
S-ILS 8L	# 1144/24 200 (200-½)			
S-LOC 8L	1340/24 396 (400-½)			1340/40 396 (400-¾)
SIDESTEP RWY 8R	1340-1 404 (400-1)		1340-1½ 404 (400-1½)	1340-2 404 (400-2)
CIRCLING	1380-1 436 (500-1)	1400-1 456 (500-1)	1400-1½ 456 (500-1½)	1500-2 556 (600-2)

TDZ/CL Rwys 8L and 26L
HIRL Rwys 8L-26R and 8R-26L

FAF to MAP 5.6 NM

Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52

SW-3, 14 JAN 2010 to 11 FEB 2010

ONTARIO, CALIFORNIA AL-965 (FAA)

LOC/DME I-TWO	APP CRS	Rwy Idg 26L	Rwy Idg 26R
111.35	256°	10200	12197
Chan 50(Y)		TDZE 926	TDZE 932
		Apt Elev 944	Apt Elev 944

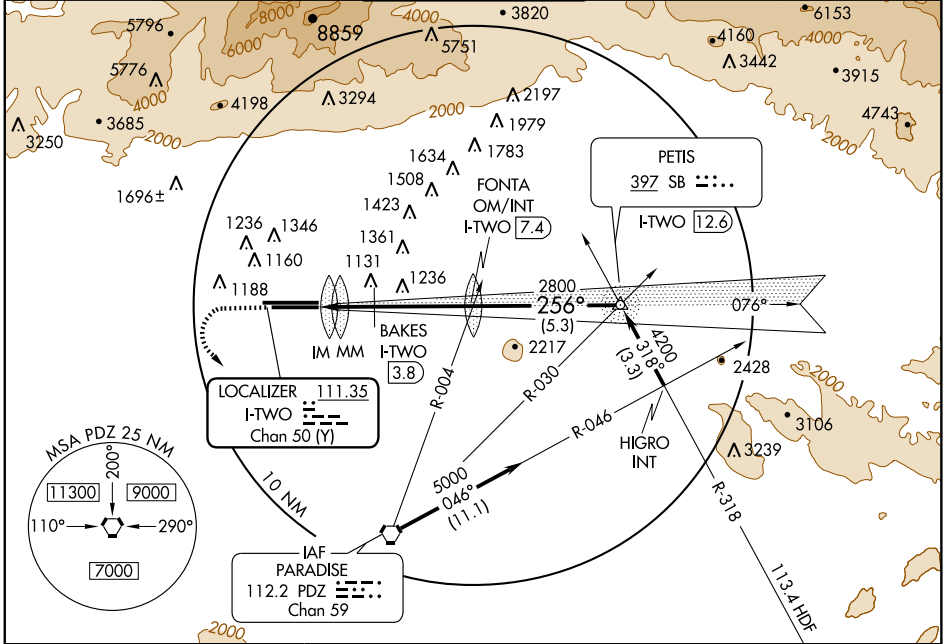
ILS or LOC RWY 26L
ONTARIO INTL (ONT)

Circling NA north of Rwy 8L-26R.
SIDESTEP 26R: Inoperative table does not apply to Cats. A and B.

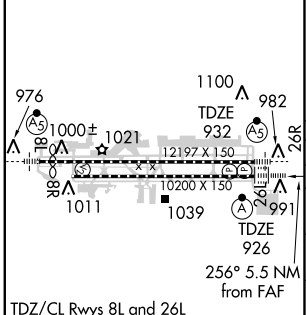
ALSF-2 Rwy 26L (A) | MALSR Rwy 26R (A5)

MISSED APPROACH: Climb to 1700 then climbing left turn to 4000 direct PDZ VORTAC.

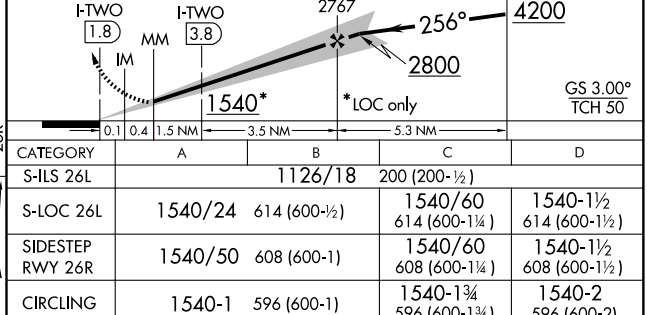
ATIS	SOCAL APP CON	ONTARIO TOWER	GND CON	CLNC DEL
124.25	127.25 318.2	120.6 360.775	121.9 257.8	118.1



ELEV 944



TDZ/CL Rwys 8L and 26L
HIRL Rwys 8L-26R and 8R-26L



CATEGORY	A	B	C	D
S-ILS 26L	1126/18 200 (200-½)			
S-LOC 26L	1540/24 614 (600-½)		1540/60 614 (600-1¼)	1540-1½ 614 (600-1½)
SIDESTEP RWY 26R	1540/50 608 (600-1)		1540/60 608 (600-1¼)	1540-1½ 608 (600-1½)
CIRCLING	1540-1 596 (600-1)		1540-1¾ 596 (600-1¾)	1540-2 596 (600-2)
BAKES DME MINIMUMS				
S-LOC 26L	1340/24 414 (400-½)		1340/40 414 (400-¾)	
CIRCLING	1380-1 436 (500-1)	1400-1 456 (500-1)	1400-1½ 456 (500-1½)	1500-2 556 (600-2)

FAF to MAP 5.5 NM					
Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50

SW-3, 14 JAN 2010 to 11 FEB 2010

ONTARIO, CALIFORNIA AL-965 (FAA)

LOC/DME I-ONT	APP CRS	Rwy Idg 26R	TDZE	Apt Elev	Rwy Idg 26L	TDZE	Apt Elev
109.7 Chan 34	256°	12197	932	944	10200	926	944

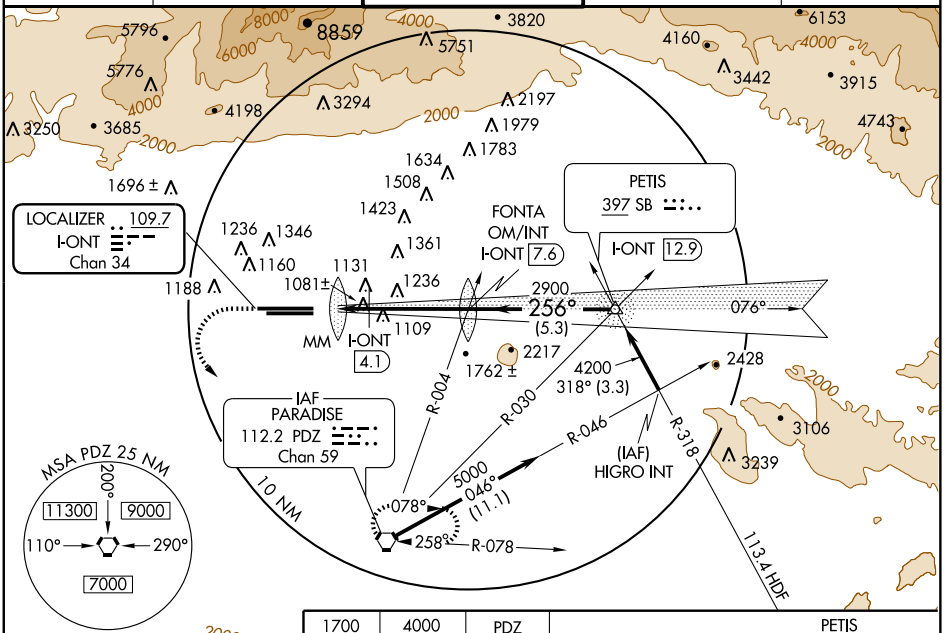
ILS or LOC RWY 26R
ONTARIO INTL (ONT)

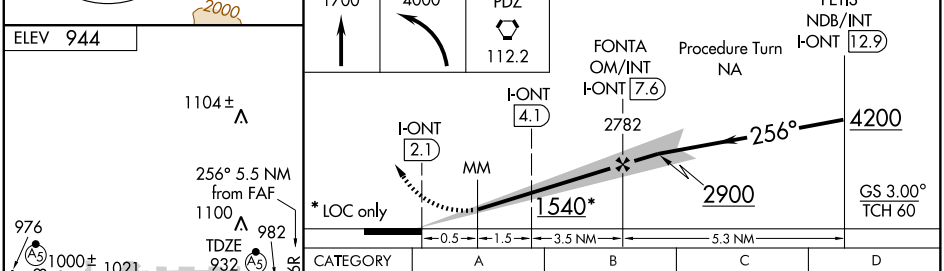
Circling NA north of Rwy 8L-26R
Inoperative table does not apply to sidestep Rwy 26L Cats A and B.

ALSF-2 Rwy 26L (A) MALSR Rwy 26R (A5)

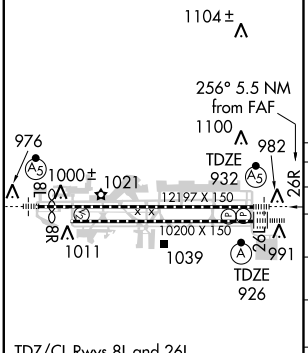
MISSED APPROACH: Climb to 1700 then climbing left turn to 4000 direct PDZ VORTAC and hold.

ATIS	SOCAL APP CON	ONTARIO TOWER	GND CON	CLNC DEL
124.25	127.25 318.2	120.6 360.775	121.9 257.8	118.1





ELEV 944



TDZ/CL Rwys 8L and 26L
HIRL Rwys 8L-26R and 8R-26L

FAF to MAP 5.5 NM					
Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50

CATEGORY	A	B	C	D
S-ILS 26R	1132/24 200 (200-½)			
S-LOC 26R	1540/24 608 (600-½)		1540/60 608 (600-1¼)	1540-1½ 608 (600-1½)
SIDESTEP RWY 26L	1540/50 614 (600-1)		1540/60 614 (600-1¼)	1540-1½ 614 (600-1½)
CIRCLING	1540-1 596 (600-1)		1540-1¾ 596 (600-1¾)	1540-2 596 (600-2)
DME MINIMUMS				
S-LOC 26R	1340/24 408 (400-½)		1340/40 408 (400-¾)	
CIRCLING	1380-1 436 (500-1)	1400-1 456 (500-1)	1400-1¾ 456 (500-1¾)	1500-2 556 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

ONTARIO, CALIFORNIA

AL-965 (FAA)

LOC/DME I-TWO	APP CRS	Rwy Idg	10200
111.35	256°	TDZE	926
Chan 50(Y)		Apt Elev	944

ILS RWY 26L (CAT II)

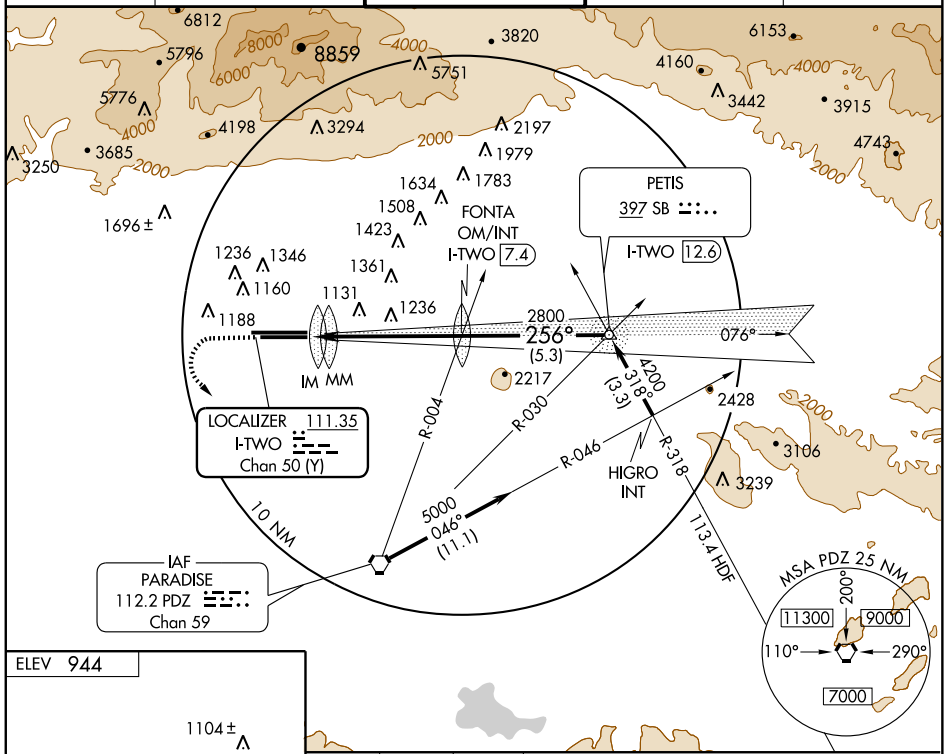
ONTARIO INTL (ONT)

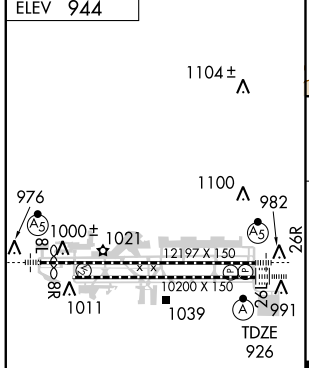
Circling NA north of Rwy 8L-26R.

ALSF-2

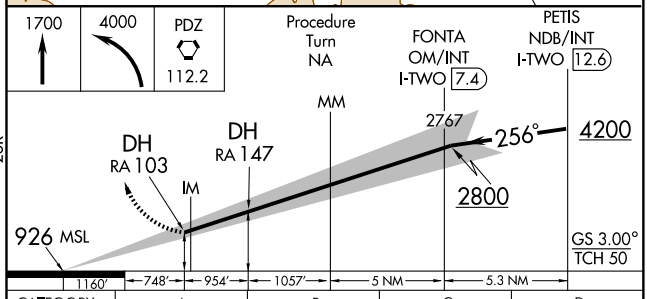
MISSED APPROACH: Climb to 1700 then climbing left turn to 4000 direct PDZ VORTAC.

ATIS	SOCAL APP CON	ONTARIO TOWER	GND CON	CLNC DEL
124.25	127.25 318.2	120.6 360.775	121.9 257.8	118.1





TDZ/CL Rwys 8L and 26L
HIRL Rwys 8L-26R and 8R-26L



CATEGORY	A	B	C	D
S-ILS 26L	RA 147/16 150 DA 1076			
S-ILS 26L	RA 103/12 100 DA 1026			

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-3, 14 JAN 2010 to 11 FEB 2010

ONTARIO, CALIFORNIA

AL-965 (FAA)

LOC/DME I-TWO	APP CRS	Rwy Idg	10200
111.35	256°	TDZE	926
Chan 50(Y)		Apt Elev	944

ILS RWY 26L (CAT III)

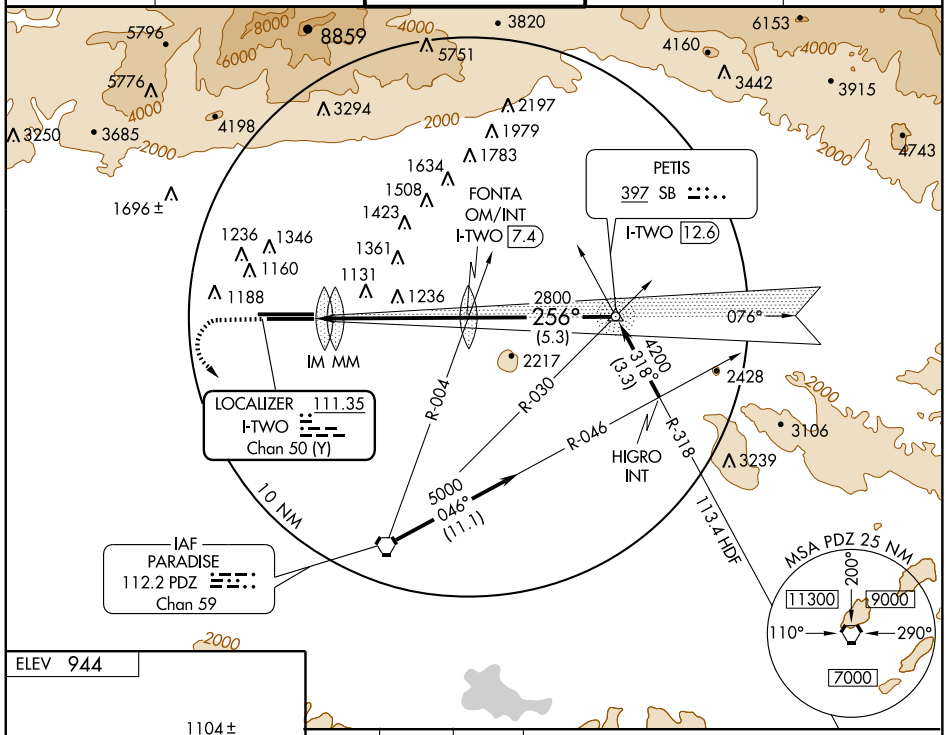
ONTARIO INTL (ONT)

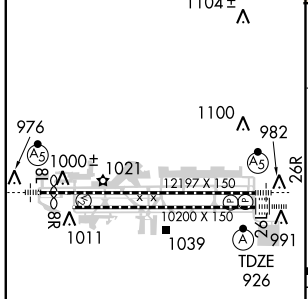
Circling NA north of Rwy 8L-26R.

ALSF-2

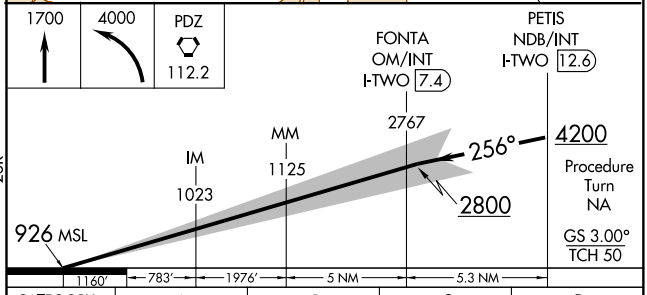
MISSED APPROACH: Climb to 1700 then climbing left turn to 4000 direct PDZ VORTAC.

ATIS	SOCAL APP CON	ONTARIO TOWER	GND CON	CLNC DEL
124.25	127.25 318.2	120.6 360.775	121.9 257.8	118.1





TDZ/CL Rwys 8L and 26L
HIRL Rwys 8L-26R and 8R-26L



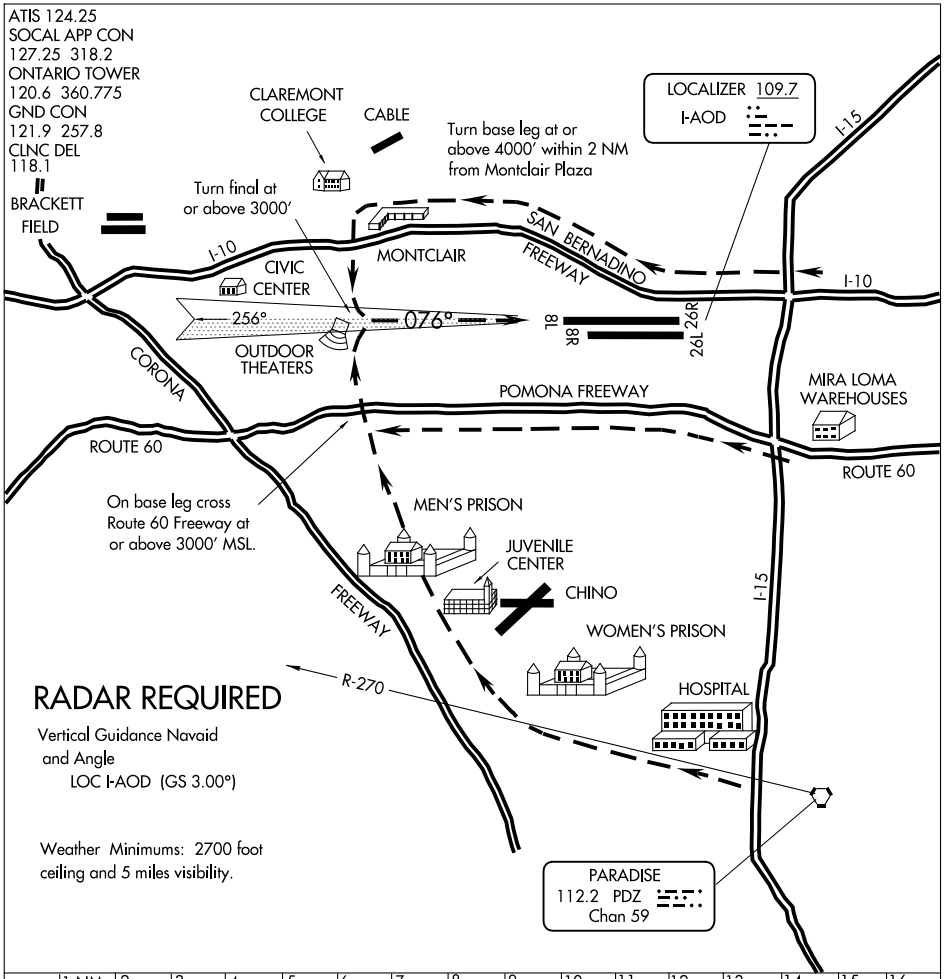
CATEGORY	A	B	C	D
S-ILS 26L	CAT IIIa		RVR 07	
S-ILS 26L	CAT IIIb		RVR 06	
S-ILS 26L	CAT IIIc		NA	

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-3, 14 JAN 2010 to 11 FEB 2010

INTERSTATE VISUAL RWY 8L

AL-965 (FAA)



INTERSTATE VISUAL RWY 8L

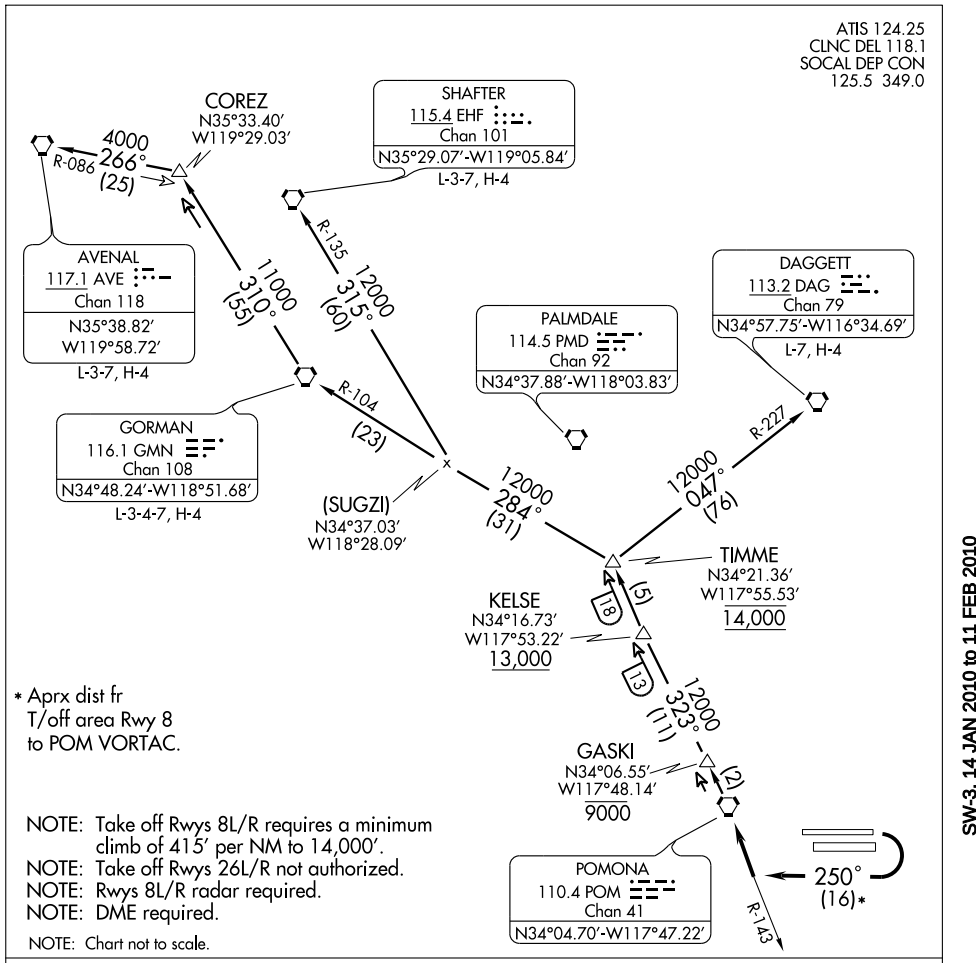
When Visual Approaches to Runway 8L are in progress, clearances will be given utilizing in part the following phraseology:

"(IDENT) CLEARED FOR INTERSTATE VISUAL RUNWAY 8L APPROACH."

ONTARIO TWO DEPARTURE

SL-965 (FAA)

ONTARIO INTL (ONT)
ONTARIO, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 8L/R: Turn right heading 250° to intercept and proceed via POM R-143 to POM VORTAC. Cross GASKI at or below 9000, cross KELSE at or above 13,000, cross TIMME at 14,000. Then via (transition) or (assigned route). Expect clearance to filed altitude 10 minutes after departure.

AVENAL TRANSITION (ONT2.AVE):

DAGGETT TRANSITION (ONT2.DAG):

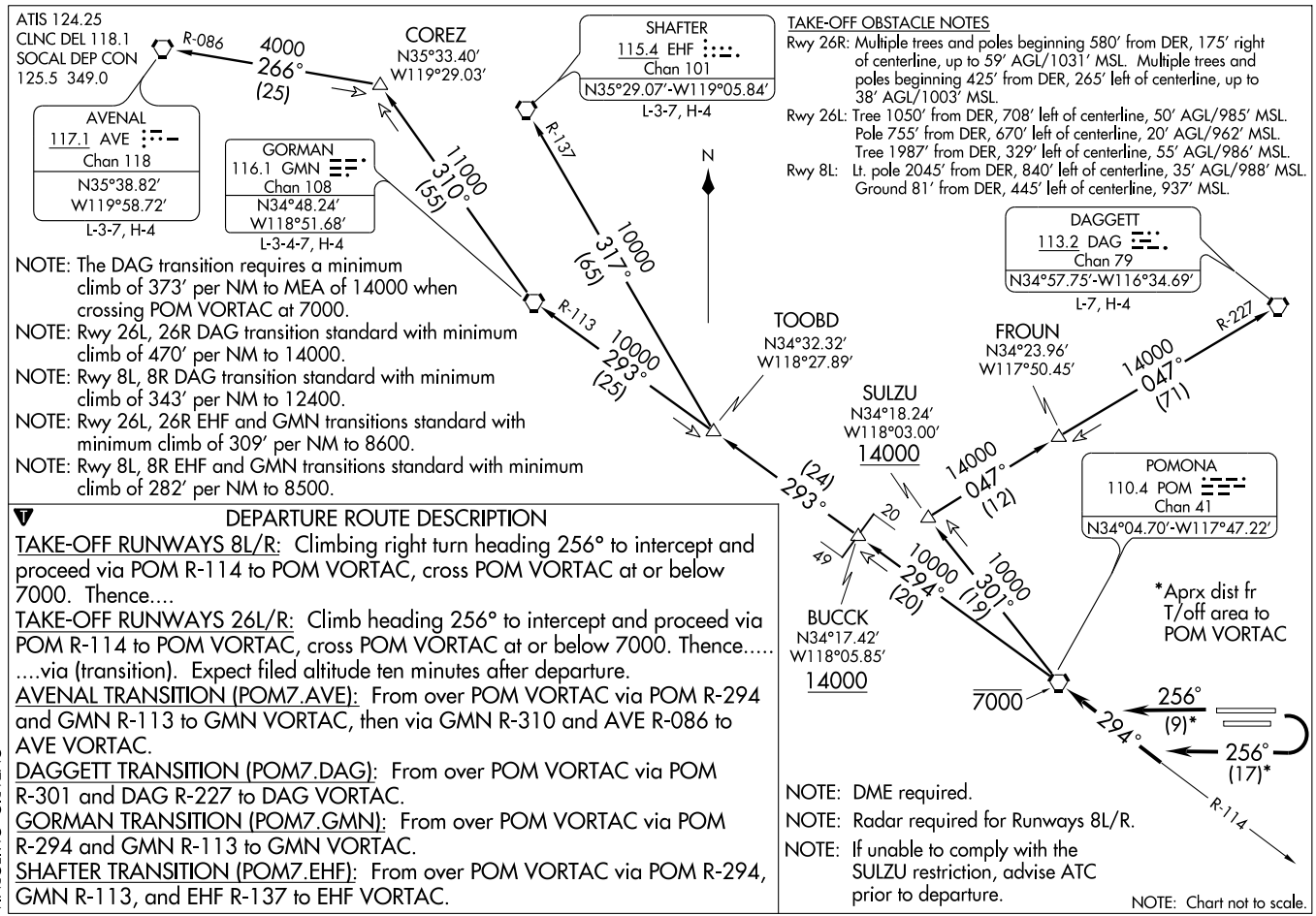
GORMAN TRANSITION (ONT2.GMN):

SHAFTER TRANSITION (ONT2.EHF):

SW-3, 14 JAN 2010 to 11 FEB 2010

POMONA SEVEN DEPARTURE

ONTARIO INTL (ONT)
ONTARIO, CALIFORNIA



NOTE: The DAG transition requires a minimum climb of 373′ per NM to MEA of 14000 when crossing POM VORTAC at 7000.

NOTE: Rwy 26L, 26R DAG transition standard with minimum climb of 470′ per NM to 14000.

NOTE: Rwy 8L, 8R DAG transition standard with minimum climb of 343′ per NM to 12400.

NOTE: Rwy 26L, 26R EHF and GMN transitions standard with minimum climb of 309′ per NM to 8600.

NOTE: Rwy 8L, 8R EHF and GMN transitions standard with minimum climb of 282′ per NM to 8500.

TAKE-OFF OBSTACLE NOTES

Rwy 26R: Multiple trees and poles beginning 580′ from DER, 175′ right of centerline, up to 59′ AGL/1031′ MSL. Multiple trees and poles beginning 425′ from DER, 265′ left of centerline, up to 38′ AGL/1003′ MSL.

Rwy 26L: Tree 1050′ from DER, 708′ left of centerline, 50′ AGL/985′ MSL. Pole 755′ from DER, 670′ left of centerline, 20′ AGL/962′ MSL. Tree 1987′ from DER, 329′ left of centerline, 55′ AGL/986′ MSL.

Rwy 8L: Lt. pole 2045′ from DER, 840′ left of centerline, 35′ AGL/988′ MSL. Ground 81′ from DER, 445′ left of centerline, 937′ MSL.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 8L/R: Climbing right turn heading 256° to intercept and proceed via POM R-114 to POM VORTAC, cross POM VORTAC at or below 7000. Thence....

TAKE-OFF RUNWAYS 26L/R: Climb heading 256° to intercept and proceed via POM R-114 to POM VORTAC, cross POM VORTAC at or below 7000. Thence..... ....via (transition). Expect filed altitude ten minutes after departure.

AVENAL TRANSITION (POM7.AVE): From over POM VORTAC via POM R-294 and GMN R-113 to GMN VORTAC, then via GMN R-310 and AVE R-086 to AVE VORTAC.

DAGGETT TRANSITION (POM7.DAG): From over POM VORTAC via POM R-301 and DAG R-227 to DAG VORTAC.

GORMAN TRANSITION (POM7.GMN): From over POM VORTAC via POM R-294 and GMN R-113 to GMN VORTAC.

SHAFTER TRANSITION (POM7.EHF): From over POM VORTAC via POM R-294, GMN R-113, and EHF R-137 to EHF VORTAC.

NOTE: DME required.

NOTE: Radar required for Runways 8L/R.

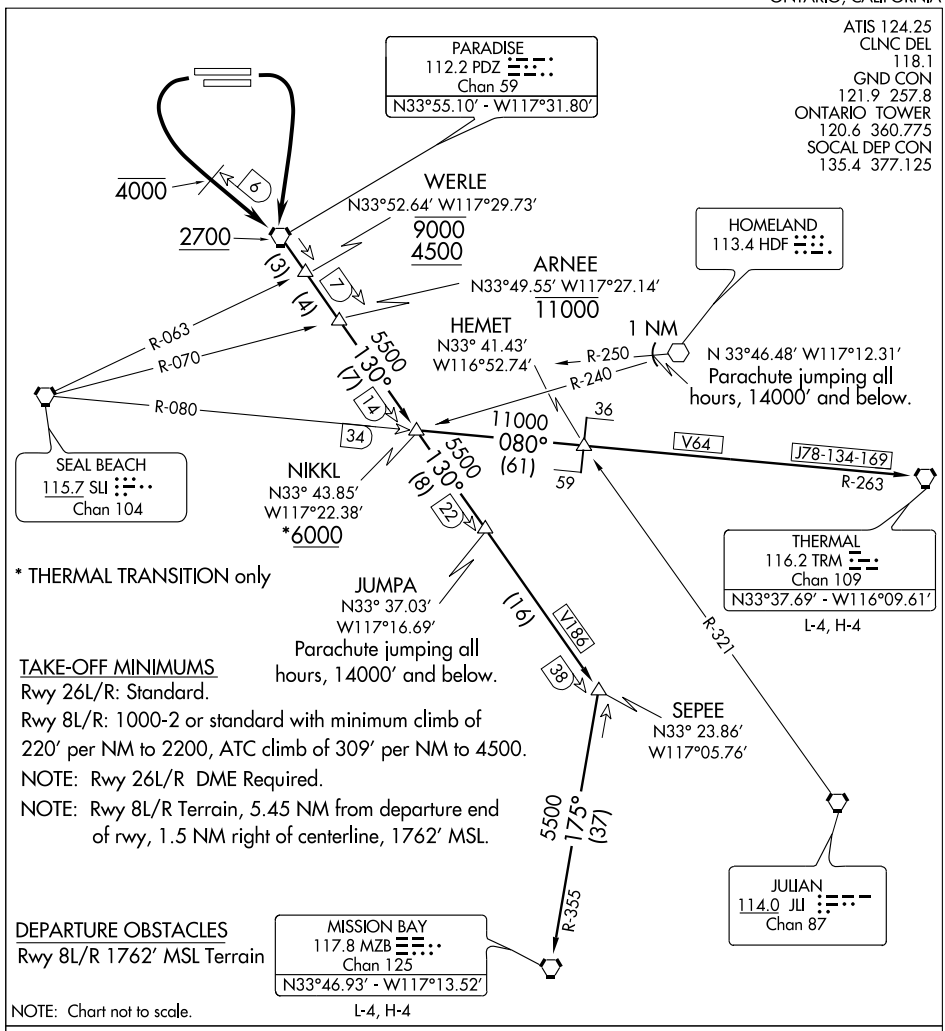
NOTE: If unable to comply with the SULZU restriction, advise ATC prior to departure.

NOTE: Chart not to scale.

PRADO SEVEN DEPARTURE

SL-965 (FAA)

ONTARIO INTL (ONT)
ONTARIO, CALIFORNIA



TAKE-OFF MINIMUMS
Rwy 26L/R: Standard.
Rwy 8L/R: 1000-2 or standard with minimum climb of 220' per NM to 2200, ATC climb of 309' per NM to 4500.
NOTE: Rwy 26L/R DME Required.
NOTE: Rwy 8L/R Terrain, 5.45 NM from departure end of rwy, 1.5 NM right of centerline, 1762' MSL.

DEPARTURE OBSTACLES
Rwy 8L/R 1762' MSL Terrain

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 8L/R: Climbing right turn direct PDZ VORTAC. Thence...
TAKE-OFF RWY 26L/R: Climbing left turn direct PDZ VORTAC, cross 6 DME northwest of PDZ VORTAC at or below 4000'. Thence...
...via (assigned transition) or (assigned route). Cross PDZ VORTAC at or above 2700', expect filed altitude ten minutes after departure.
MISSION BAY TRANSITION (PRDO7.MZB): From over PDZ VORTAC via PDZ R-130 and MZB R-355 to MZB VORTAC.
THERMAL TRANSITION (PRDO7.TRM): From over PDZ VORTAC via PDZ R-130, SLI R-080 and TRM R-263 to TRM VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010

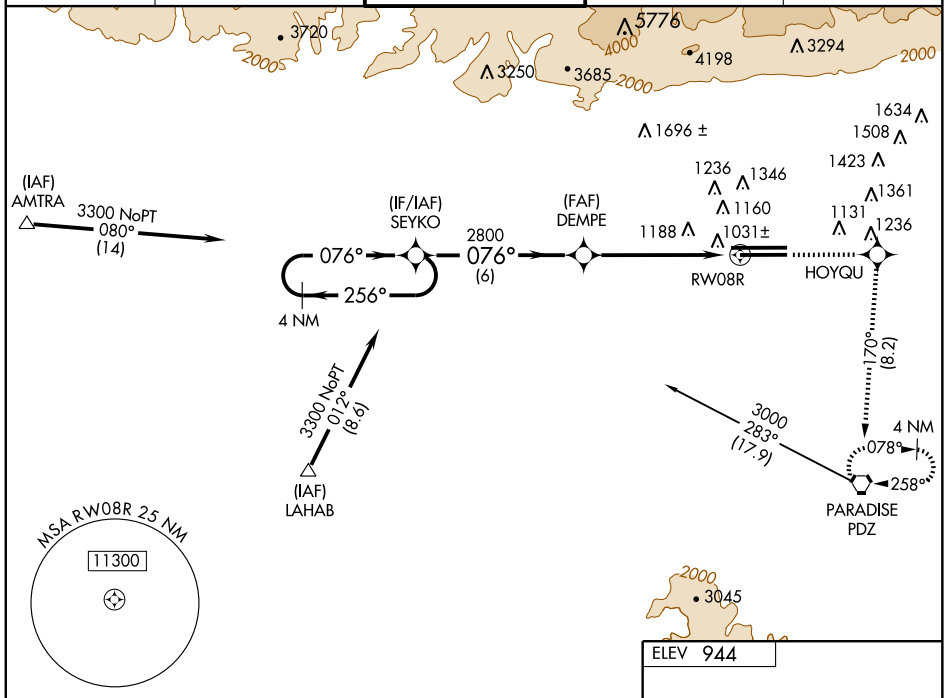
WAAS CH 70329 W08A	APP CRS 076°	Rwy Idg 10200 / TDZE 936 / Apt Elev 944

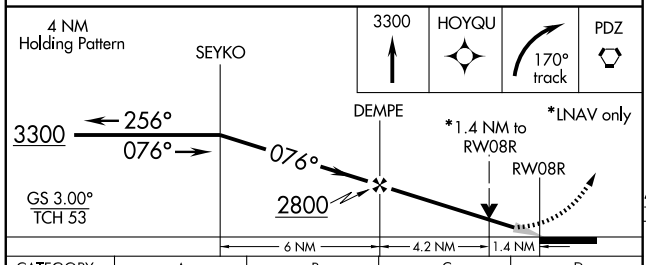
RNAV (GPS) RWY 8R
ONTARIO INTL (ONT)

Circling NA north of Rwy 8L-26R.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F).
DME/DME RNP- 0.3 NA.

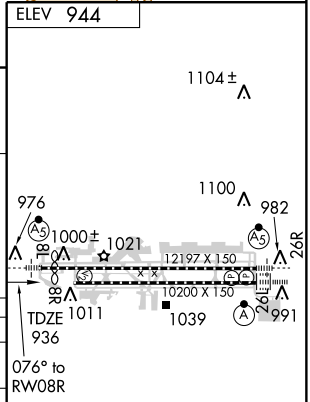
MISSED APPROACH: Climb to 3300 direct HOYQU and turn right via 170° track to PDZ VORTAC and hold.

ATIS	SOCAL APP CON	ONTARIO TOWER	GND CON	CLNC DEL
124.25	127.25 318.2	120.6 360.775	121.9 257.8	118.1





CATEGORY	A	B	C	D
LPV DA	1220/50 284 (300-1)			
LNAV/VNAV DA	1494-2 558 (600-2)			
LNAV MDA	1440/50 504 (500-1)		1440-1½ 504 (500-1½)	
CIRCLING	1440-1 496 (500-1)		1440-1½ 496 (500-1½)	1500-2 556 (600-2)



TDZ/CL Rwys 8L and 26L
HIRL Rwys 8L-26R and 8R-26L

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS CH 45807 W08A	APP CRS 076°	Rwy Idg 11200 TDZE 944 Apt Elev 944

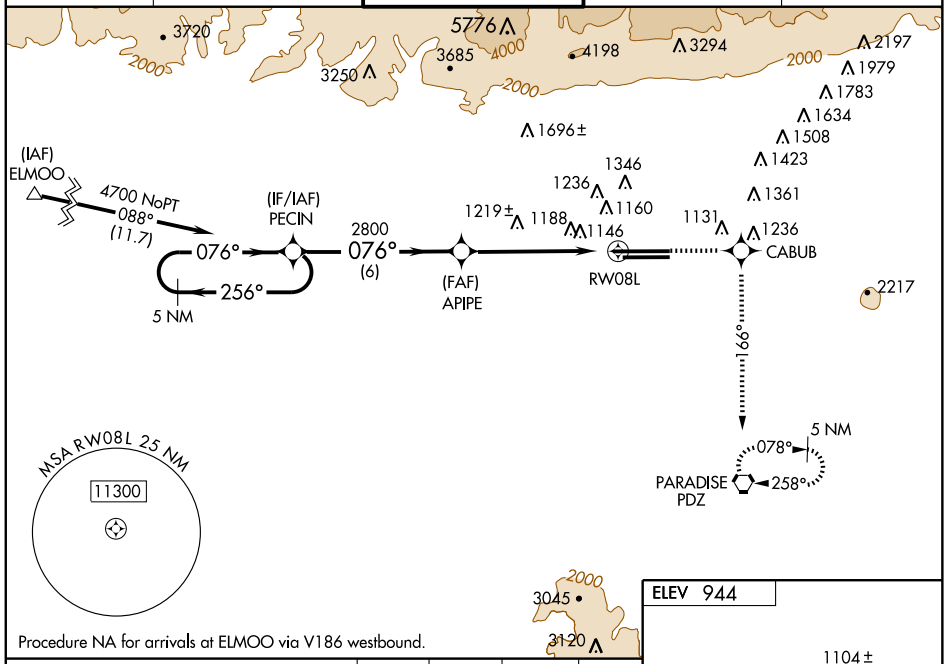
RNAV (GPS) Y RWY 8L
ONTARIO INTL (ONT)

DME/DME RNP -0.3 NA. Circling NA north of Rwy 8L-26R.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F).
VDP and Baro-VNAV NA when using Chino altimeter setting.
When local altimeter setting not received, use Chino altimeter setting and increase all DAs/MDAs 60 feet and all visibilities ½ mile.
For inoperative MALSR increase LPV visibility all Cats to RVR 6000.

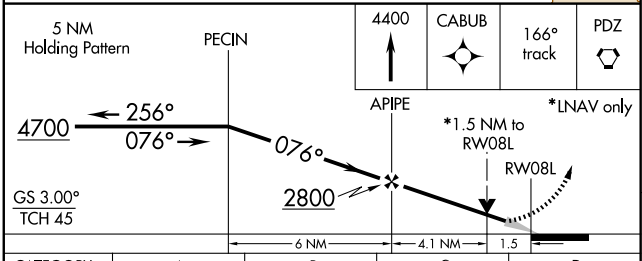
MALSR

MISSED APPROACH: Climb to 4400 direct CABUB and via 166° track to PDZ VORTAC and hold, continue climb-in-hold to 4400.

ATIS	SOCAL APP CON	ONTARIO TOWER	GND CON	CLNC DEL
124.25	127.25 318.2	120.6 360.775	121.9 257.8	118.1

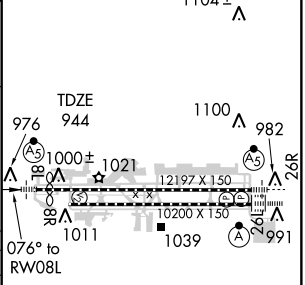


Procedure NA for arrivals at ELMOO via V186 westbound.



CATEGORY	A	B	C	D
LPV DA	1266/40 322 (400-¾)			
LNAV/VNAV DA	1520-1½ 576 (600-1½)			
LNAV MDA	1480/24 536 (600-½)		1480/50 536 (600-1)	1480/60 536 (600-1¼)
CIRCLING	1480-1 536 (600-1)		1480-1½ 536 (600-1½)	1500-2 556 (600-2)

ELEV 944



TDZ/CL Rwys 8L and 26L
HIRL Rwys 8L-26R and 8R-26L

SW-3, 14 JAN 2010 to 11 FEB 2010

ONTARIO, CALIFORNIA AL-965 (FAA)

WAAS	APP CRS	Rwy Idg	10200
CH 90407	256°	TDZE	926
W26B		Apt Elev	944

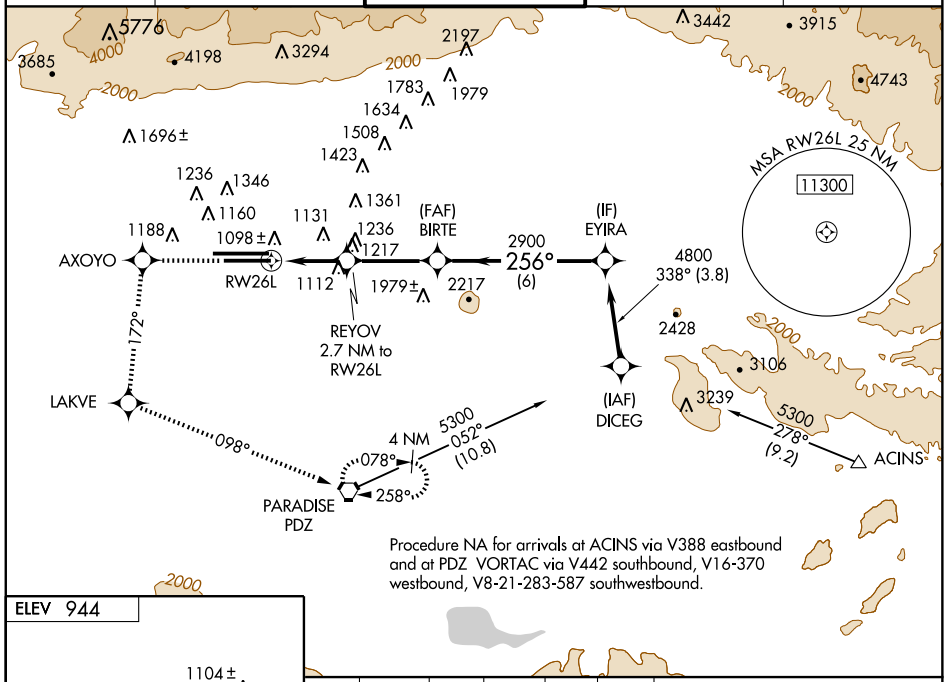
RNAV (GPS) Y RWY 26L
ONTARIO INTL (ONT)

DME/DME RNP -0.3 NA. Circling NA north of Rwy 8L-26R.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F).
Baro-VNAV and VDP NA when using Chino altimeter setting.
When local altimeter setting not received, use Chino altimeter setting and increase all DAs/MDAs 60 feet and all visibilities ½ mile.

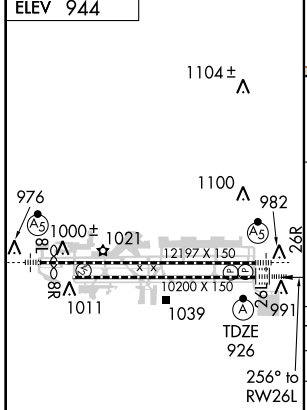
ALSF-2

MISSED APPROACH: Climb to 4000 direct AXOYO and via 172° track to LAKVE and via 098° track to PDZ VORTAC and hold.

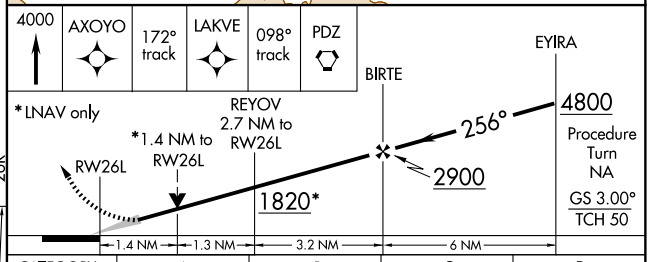
ATIS	SOCAL APP CON	ONTARIO TOWER	GND CON	CLNC DEL
124.25	127.25 318.2	120.6 360.775	121.9 257.8	118.1



Procedure NA for arrivals at ACINS via V388 eastbound and at PDZ VORTAC via V442 southbound, V16-370 westbound, V8-21-283-587 southwestbound.



TDZ/CL Rwys 8L and 26L
HIRL Rwys 8L-26R and 8R-26L



CATEGORY	A	B	C	D
LPV DA	1176/24 250 (300-½)			
LNAV/VNAV DA	1405/60 479 (500-1¼)			
LNAV MDA	1420/24 494 (500-½)		1420/40 494 (500-¾)	1420/50 494 (500-1)
CIRCLING	1420-1 476 (500-1)		1420-1½ 476 (500-1½)	1500-2 556 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS CH 53406 W26A	APP CRS 256°	Rwy Idg 12197 TDZE 932 Apt Elev 944

RNAV (GPS) Y RWY 26R

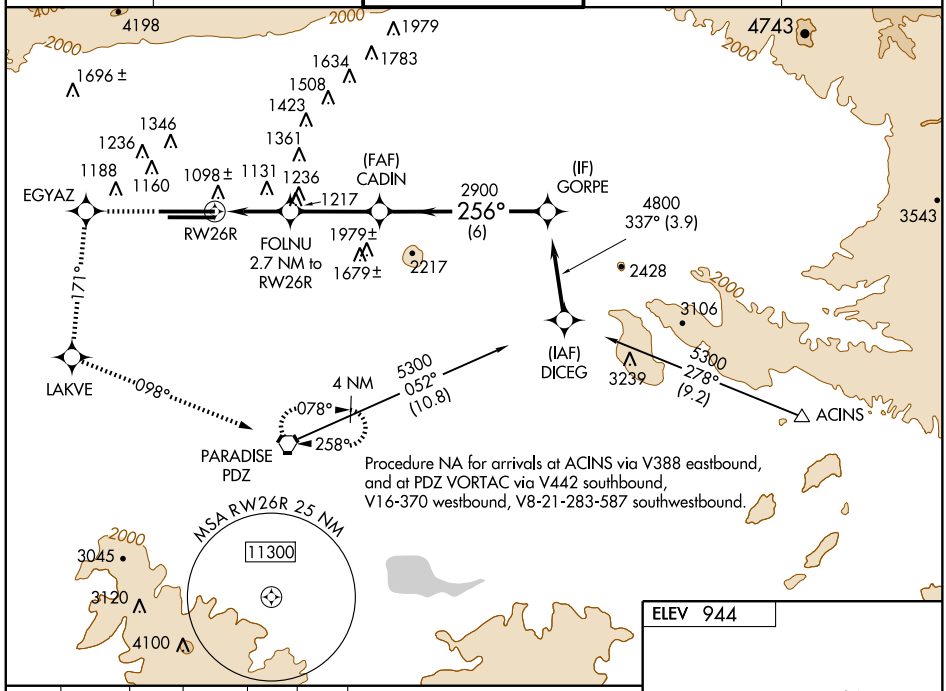
ONTARIO INTL (ONT)

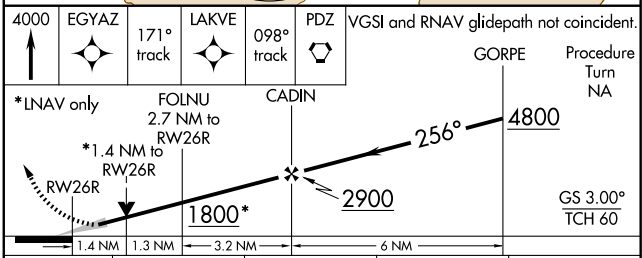
When local altimeter setting not received, use Chino altimeter setting and increase all DAs/MDAs 60 feet and all visibilities ½ mile.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F).
VDP and Baro-VNAV NA when using Chino altimeter setting.
DME/DME RNP-0.3 NA. Circling NA north of Rwy 8L-26R.

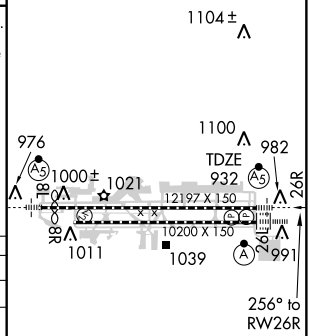
MALSR

MISSED APPROACH: Climb to 4000 direct to EGYAZ and via 171° track to LAKVE and via 098° track to PDZ VORTAC and hold.

ATIS	SOCAL APP CON	ONTARIO TOWER	GND CON	CLNC DEL
124.25	127.25 318.2	120.6 360.775	121.9 257.8	118.1







CATEGORY	A	B	C	D
LPV DA	1182/24 250 (300-½)			
LNAV/VNAV DA	1406/50 474 (500-1)			
LNAV MDA	1440/24 508 (500-½)		1440/50 508 (500-1)	
CIRCLING	1440-1 496 (500-1)		1440-1½ 496 (500-1½)	1500-2 556 (600-2)

TDZ/CL Rwys 8L and 26L
HIRL Rwys 8L-26R and 8R-26L

SW-3, 14 JAN 2010 to 11 FEB 2010

RNAV (RNP) Z RWY 8L

ONTARIO INTL (ONT)

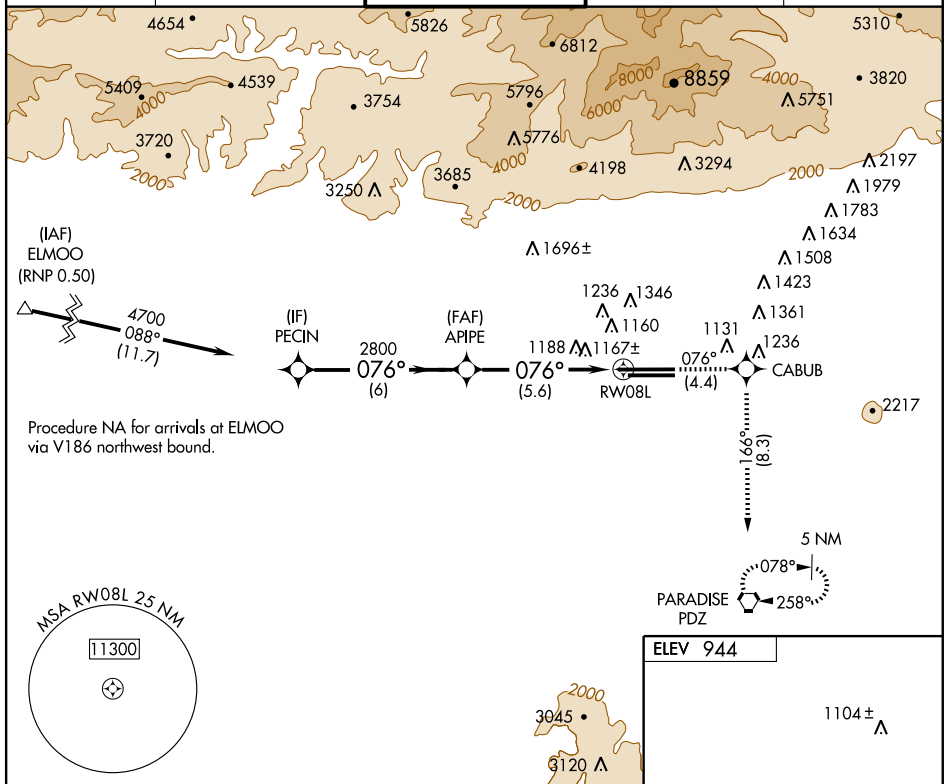
APP CRS	Rwy Idg	11200
076°	TDZE	944
	Apt Elev	944

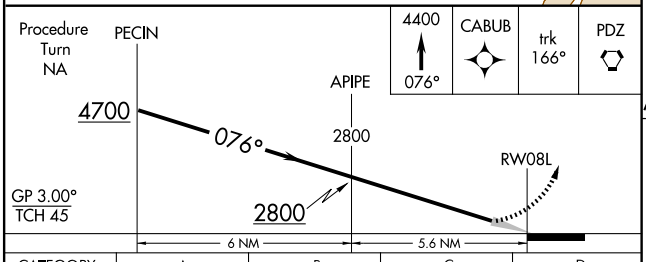
GPS required.
For uncompensated Baro-VNAV systems, LNAV/VNAV, procedure NA below -1°C (31°F) or above 47°C (116°F). Inoperative table does not apply.

MALSR

MISSED APPROACH: Climb to 4400 via track 076° to CABUB and via track 166° to PDZ VORTAC and hold, continue climb-in-hold to 4400.

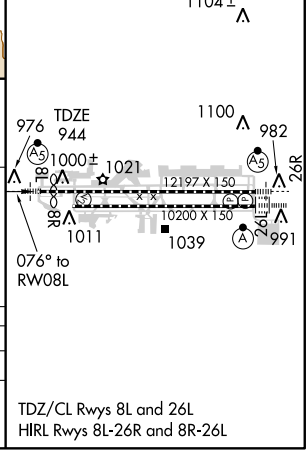
ATIS	SOCAL APP CON	ONTARIO TOWER	GND CON	CLNC DEL
124.25	127.25 318.2	120.6 360.775	121.9 257.8	118.1





CATEGORY	A	B	C	D
RNP 0.30 DA	1490-2	546 (600-2)		

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED



TDZ/CL Rwys 8L and 26L
HIRL Rwys 8L-26R and 8R-26L

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	10200
256°	TDZE	926
	Apt Elev	944

RNAV (RNP) Z RWY 26L

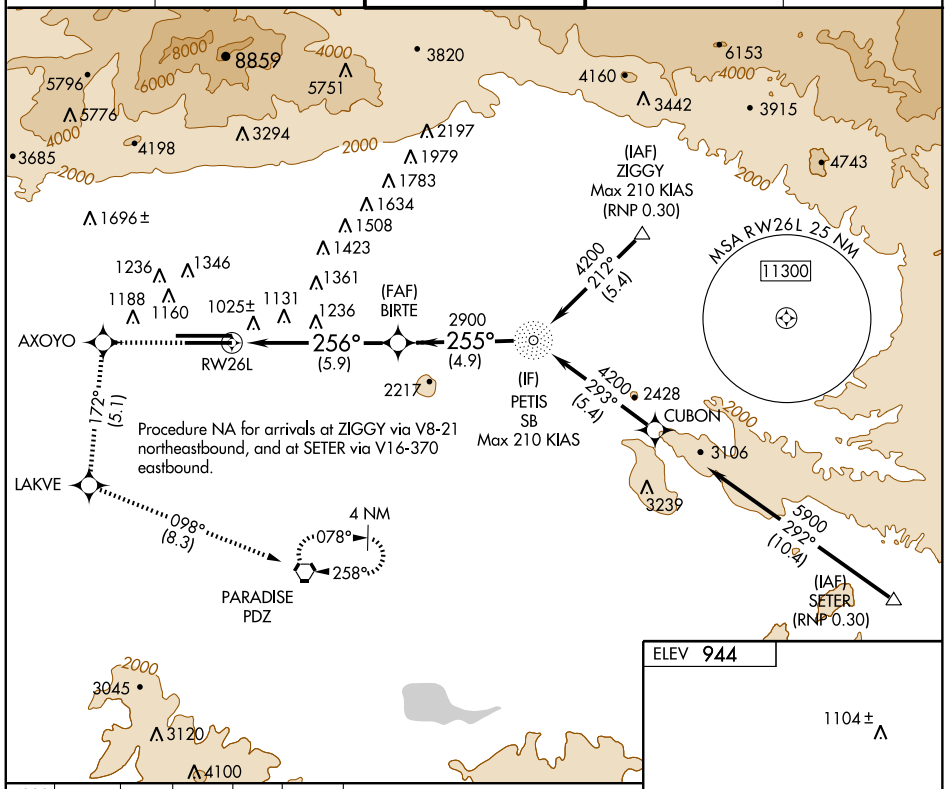
ONTARIO INTL (ONT)

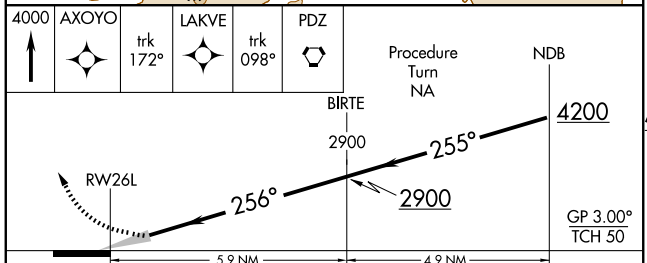
GPS required.
For uncompensated Baro-VNAV systems, procedure NA below 2°C (36°F) or above 47°C (116°F).
For inoperative ALSF increase RNP 0.30 visibility to RVR 6000.

ALSF-2

MISSED APPROACH: Climb to 4000 direct AXOYO and via track 172° to LAKVE and via track 098° to PDZ VORTAC and hold.

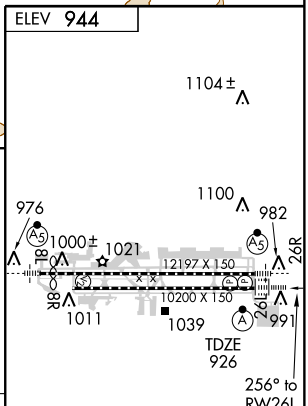
ATIS	SOCAL APP CON	ONTARIO TOWER	GND CON	CLNC DEL
124.25	127.25 318.2	120.6 360.775	121.9 257.8	118.1





CATEGORY	A	B	C	D
RNP 0.30 DA	1319/45	393 (400-⅞)		

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED



TDZ/CL Rwys 8L and 26L
HIRL Rwys 8L-26R and 8R-26L

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	12197
256°	TDZE	932
	Apt Elev	944

RNAV (RNP) Z RWY 26R

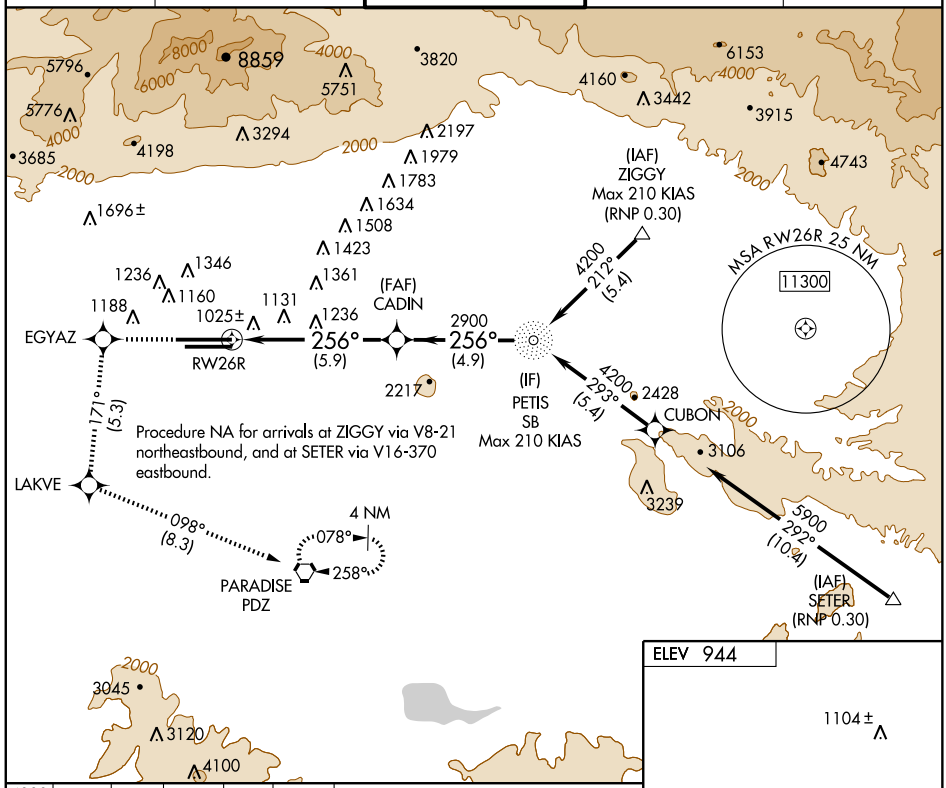
ONTARIO INTL (ONT)

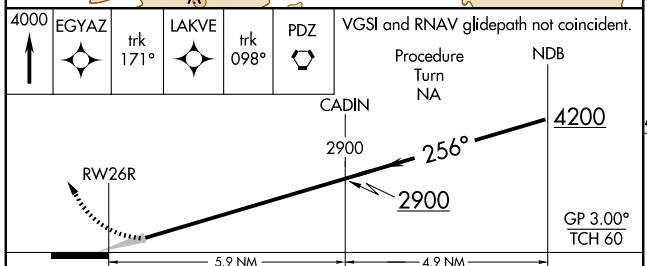
GPS required.
For uncompensated Baro-VNAV systems, procedure NA below -1°C (28°F) or above 47°C (116°F).
For inoperative MALSR increase RNP 0.30 visibility to RVR 6000.

MALSR

MISSED APPROACH: Climb to 4000 direct EGYAZ and via track 171° to LAKVE and via track 098° to PDZ VORTAC and hold.

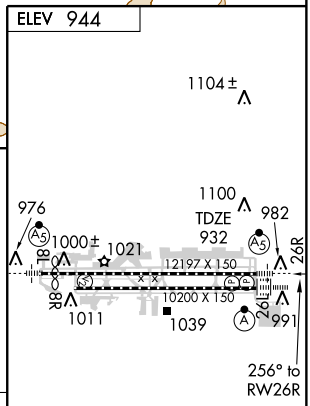
ATIS	SOCAL APP CON	ONTARIO TOWER	GND CON	CLNC DEL
124.25	127.25 318.2	120.6 360.775	121.9 257.8	118.1





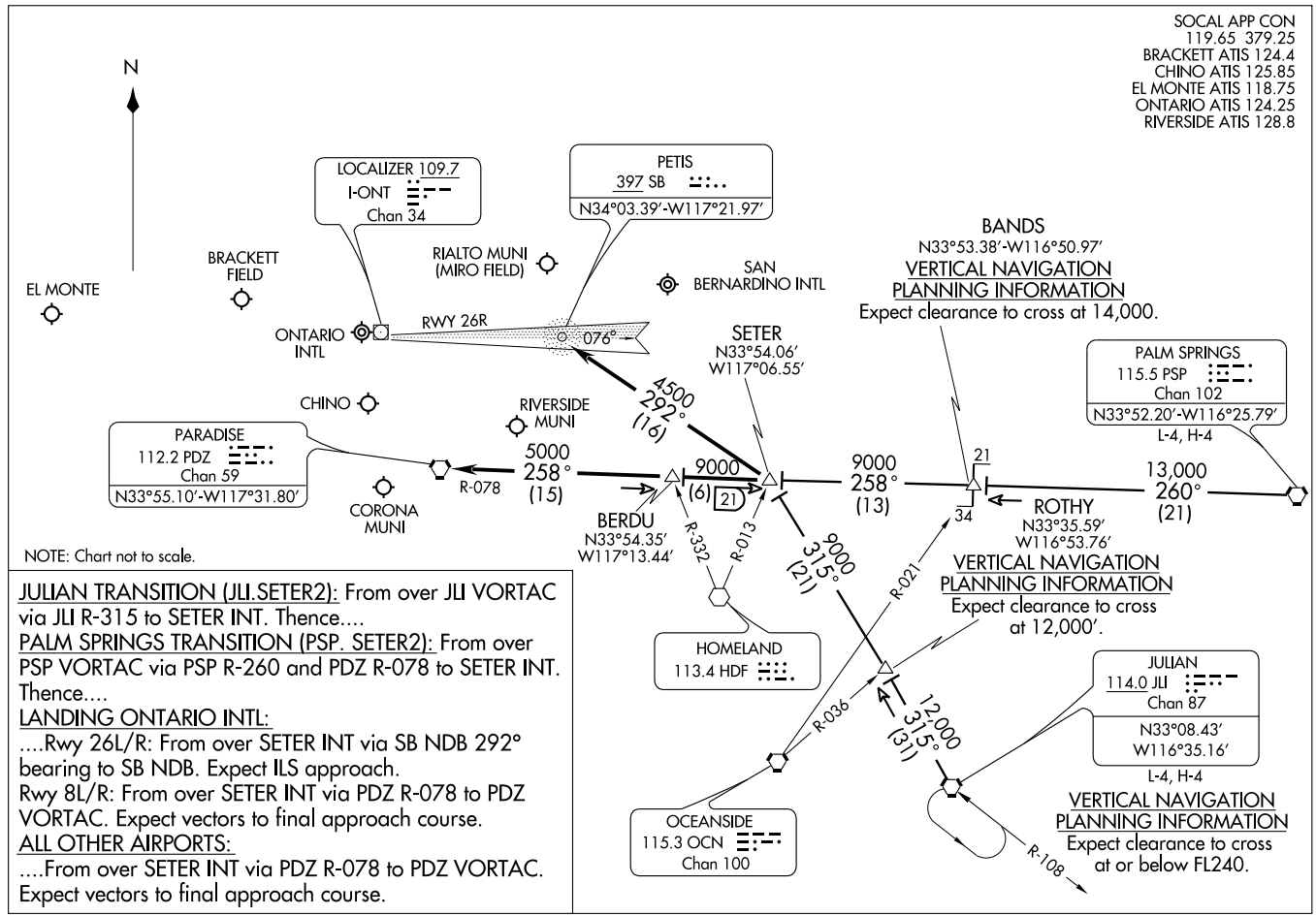
CATEGORY	A	B	C	D
RNP 0.30 DA	1324/45	392 (400-⅞)		

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED



TDZ/CL Rwys 8L and 26L
HIRL Rwys 8L-26R and 8R-26L

SW-3, 14 JAN 2010 to 11 FEB 2010



NOTE: Chart not to scale.

JULIAN TRANSITION (JLI.SETER2): From over JLI VORTAC via JLI R-315 to SETER INT. Thence....

PALM SPRINGS TRANSITION (PSP. SETER2): From over PSP VORTAC via PSP R-260 and PDZ R-078 to SETER INT. Thence....

LANDING ONTARIO INTL:

....Rwy 26L/R: From over SETER INT via SB NDB 292° bearing to SB NDB. Expect ILS approach.

Rwy 8L/R: From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ALL OTHER AIRPORTS:

....From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ST-965 (FAA)

ONTARIO, CALIFORNIA

ONTARIO, CALIFORNIA

AL-965 (FAA)

VORTAC POM 110.4 Chan 41	APP CRS 084°	Rwy Idg 10200 TDZE 936 Apt Elev 944

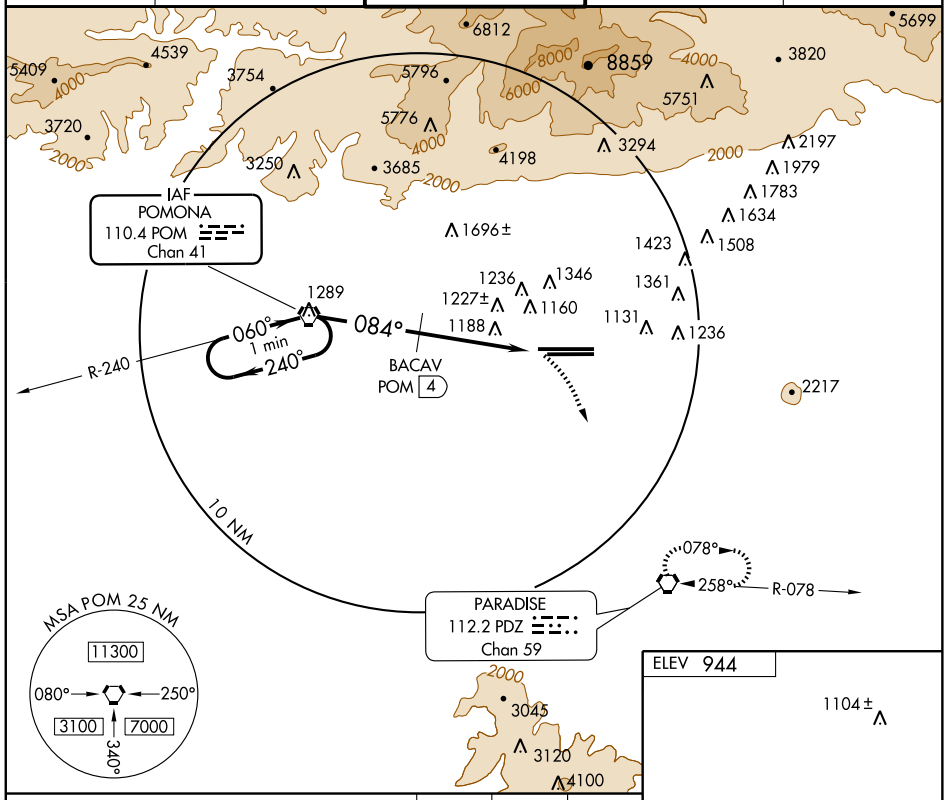
VOR/DME RWY 8R

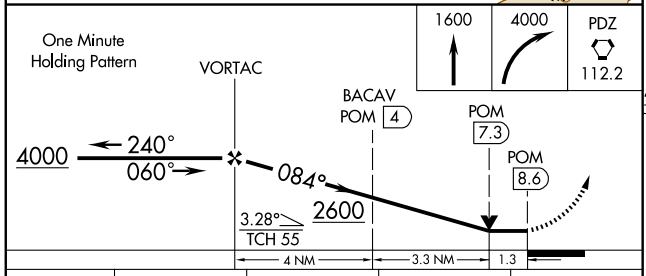
ONTARIO INTL (ONT)

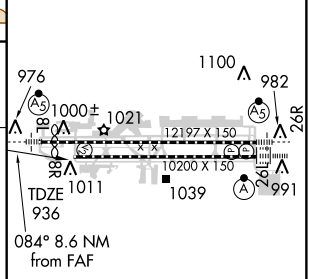
Circling NA north of Rwy 8L-26R.

MISSED APPROACH: Climb to 1600 then climbing right turn to 4000 direct PDZ VORTAC and hold.

ATIS	SOCAL APP CON	ONTARIO TOWER	GND CON	CLNC DEL
124.25	127.25 318.2	120.6 360.775	121.9 257.8	118.1



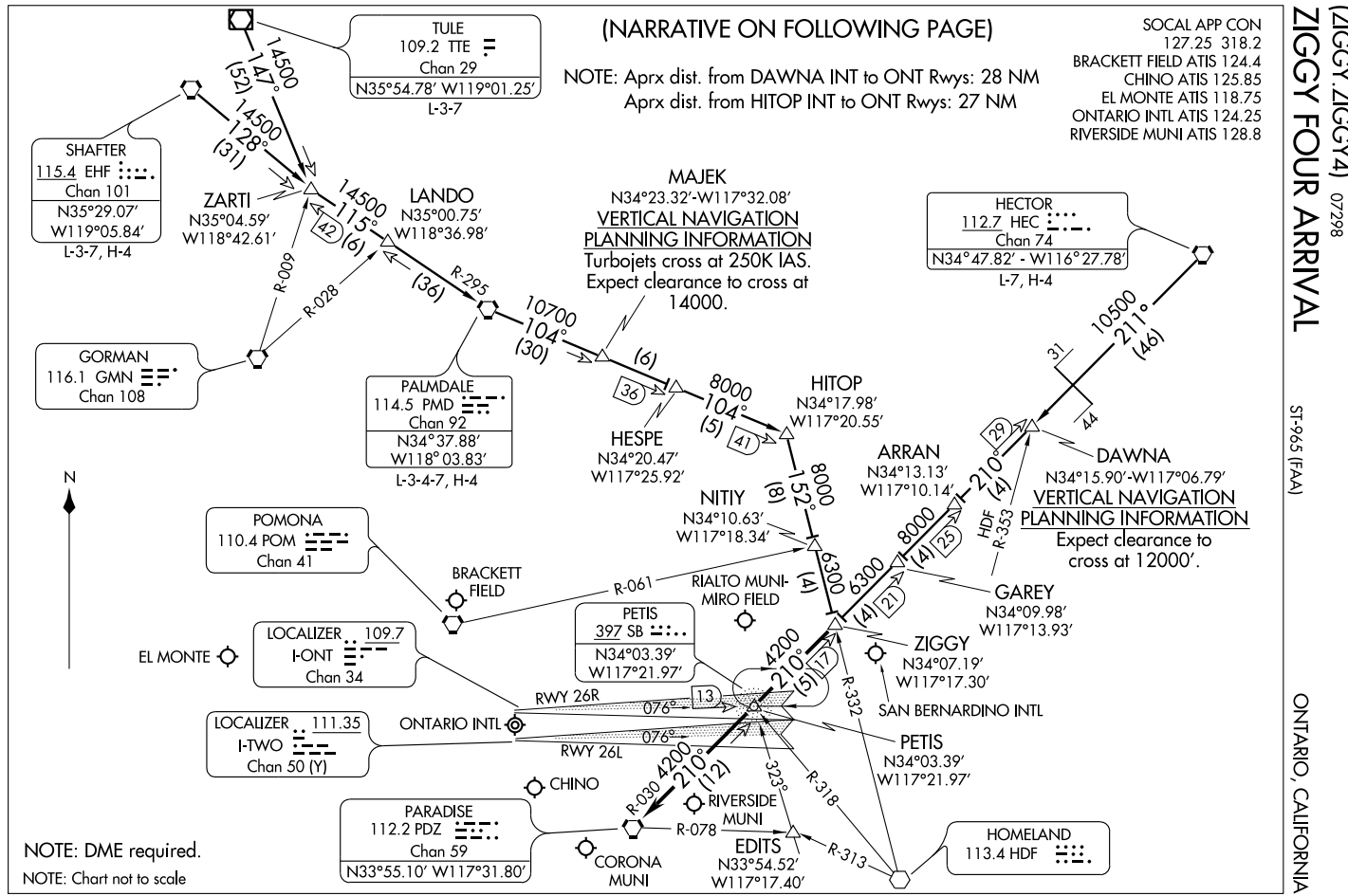




CATEGORY	A	B	C	D
S-8R	1480/50	544 (600-1)	1480-1½ 544 (600-1½)	1480-1¾ 544 (600-1¾)
CIRCLING	1480-1	536 (600-1)	1480-1½ 536 (600-1½)	1500-2 556 (600-2)

TDZ/CL Rwys 8L and 26L
HIRL Rwys 8L-26R and 8R-26L

SW-3, 14 JAN 2010 to 11 FEB 2010


(NARRATIVE ON FOLLOWING PAGE)
NOTE: Aprx dist. from DAWNA INT to ONT Rwys: 28 NM
Aprx dist. from HITOP INT to ONT Rwys: 27 NM
SOCAL APP CON
127.25 318.2
BRACKETT FIELD ATIS 124.4
CHINO ATIS 125.85
EL MONTE ATIS 118.75
ONTARIO INTL ATIS 124.25
RIVERSIDE MUNI ATIS 128.8
ZIGGY FOUR ARRIVAL
(ZIGGY.ZIGGY4) 07298
ST-965 (FAA)
ONTARIO, CALIFORNIA
TULE
109.2 TTE
Chan 29
N35°54.78' W119°01.25'
L-3-7
SHAFTER
115.4 EHF
Chan 101
N35°29.07'
W119°05.84'
L-3-7, H-4
ZARTI
N35°04.59'
W118°42.61'
LANDO
N35°00.75'
W118°36.98'
MAJEK
N34°23.32'-W117°32.08'
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojets cross at 250K IAS.
Expect clearance to cross at
14000.
HECTOR
112.7 HEC
Chan 74
N34°47.82' - W116°27.78'
L-7, H-4
GORMAN
116.1 GMN
Chan 108
PALMDALE
114.5 PMD
Chan 92
N34°37.88'
W118°03.83'
L-3-4-7, H-4
HESPE
N34°20.47'
W117°25.92'
HITOP
N34°17.98'
W117°20.55'
ARRAN
N34°13.13'
W117°10.14'
DAWNA
N34°15.90'-W117°06.79'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance to
cross at 12000'.
NITIY
N34°10.63'
W117°18.34'
POMONA
110.4 POM
Chan 41
BRACKETT
FIELD
RIALTO MUNI-
MIRO FIELD
GAREY
N34°09.98'
W117°13.93'
PETIS
397 SB
N34°03.39'
W117°21.97'
ZIGGY
N34°07.19'
W117°17.30'
EL MONTE
LOCALIZER 109.7
I-ONT
Chan 34
SAN BERNARDINO INTL
RWY 26R
RWY 26L
ONTARIO INTL
LOCALIZER 111.35
I-TWO
Chan 50 (Y)
PETIS
N34°03.39'
W117°21.97'
CHINO
PARADISE
112.2 PDZ
Chan 59
N33°55.10' W117°31.80'
RIVERSIDE
MUNI
CORONA
MUNI
EDITS
N33°54.52'
W117°17.40'
HOMELAND
113.4 HDF
NOTE: DME required.
NOTE: Chart not to scale
N

ZIGGY FOUR ARRIVAL

ARRIVAL ROUTE DESCRIPTION

HECTOR TRANSITION (HEC.ZIGGY4): From over HEC VORTAC via HEC R-211 and PDZ R-030 to ZIGGY INT. Thence . . . .

PALMDALE TRANSITION (PMD.ZIGGY4): From over PMD VORTAC via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

SHAFTER TRANSITION (EHF.ZIGGY4): From over EHF VORTAC via EHF R-128 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

TULE TRANSITION (TTE.ZIGGY4): From over TTE VOR/DME via TTE R-147 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

LANDING ONTARIO INTL:

. . . . RWY 8L/R: From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

. . . . RWY 26 L/R: From over ZIGGY INT via direct PETIS NDB or PDZ R-030 to PETIS INT; expect radar vectors for ILS approach.

ALL OTHER AIRPORTS:

. . . . From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

LOST COMMUNICATIONS: For Rialto, California, NDB-A approach, proceed from PDZ VORTAC via PDZ R-078 to EDITS INT, maintain 4200'.

SW-3, 14 JAN 2010 to 11 FEB 2010

VOR/DME CIC	APP CRS	Rwy Idg	N/A
109.8	238°	TDZE	N/A
Chan 35		Apt Elev	215

VOR or GPS-A

ORLAND/ HAIGH FIELD (037)

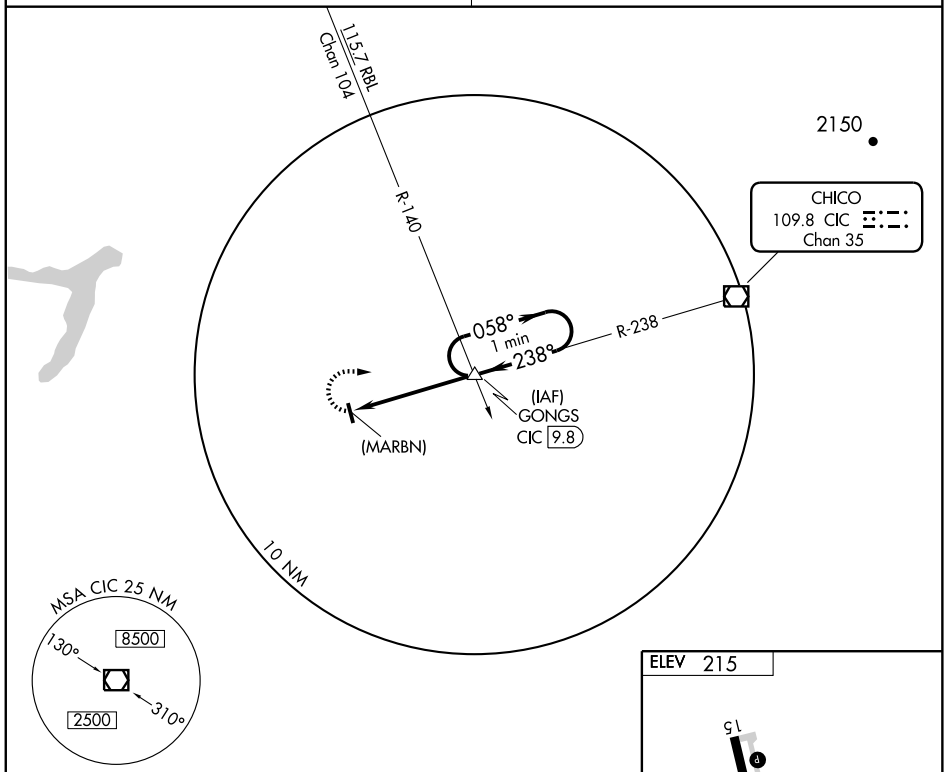
T
NA

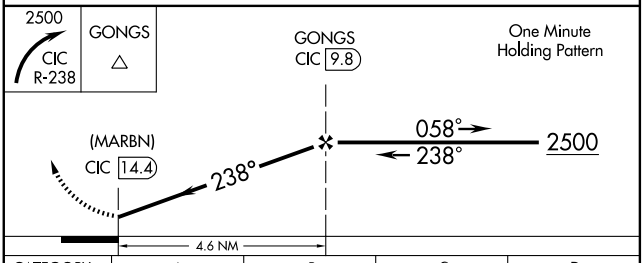
Use Chico altimeter setting, when not received, use Redding altimeter setting.

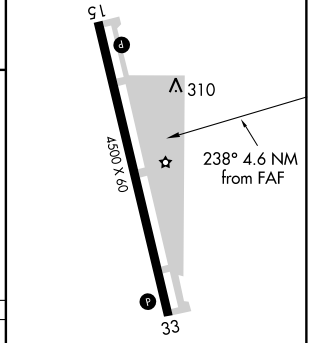
MISSED APPROACH: Climbing right turn to 2500 via CIC R-238 to GONGS INT and hold.

OAKLAND CENTER
132.2 350.3

UNICOM
122.7 (CTAF) L







MIRL Rwy 15-33 L

CATEGORY	A	B	C	D
CIRCLING	900-1 685 (700-1)		900-2 685 (700-2)	900-2¼ 685 (700-2¼)

REDDING ALTIMETER SETTING MINIMUMS

CIRCLING	1020-1 805 (900-1)	1020-1¼ 805 (900-1¼)	1020-2¼ 805 (900-2¼)	1020-2½ 805 (900-2½)

FAF to MAP 4.6 NM

Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

SW-2, 14 JAN 2010 to 11 FEB 2010

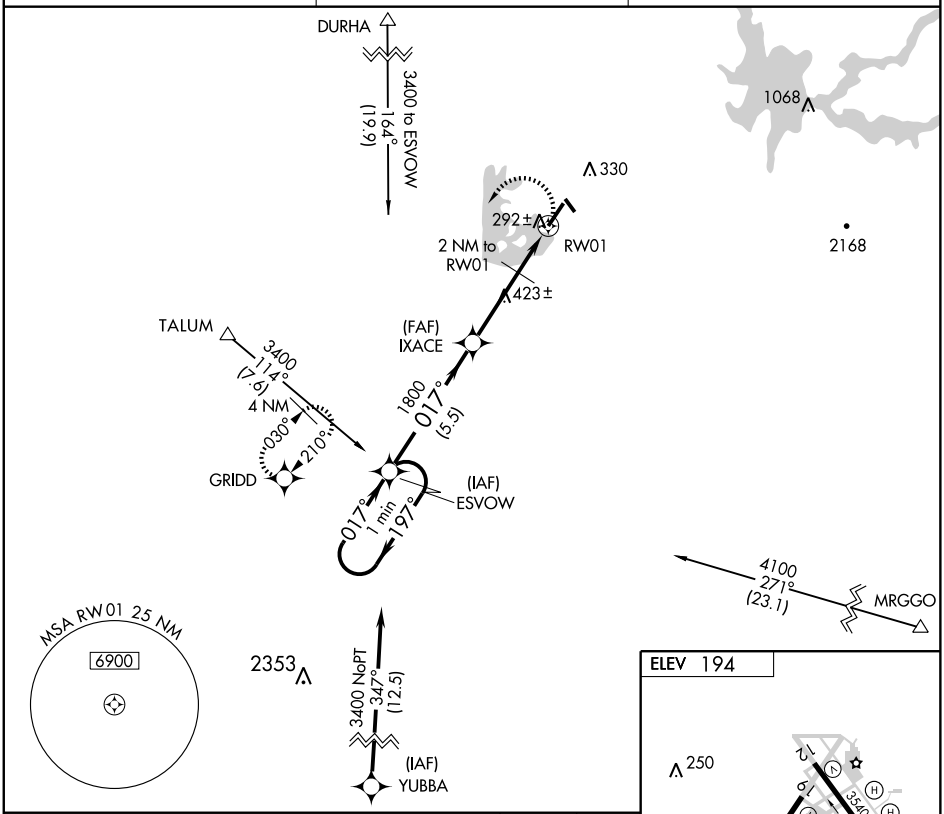
APP CRS	Rwy Idg	6020
017°	TDZE	181
	Apt Elev	194

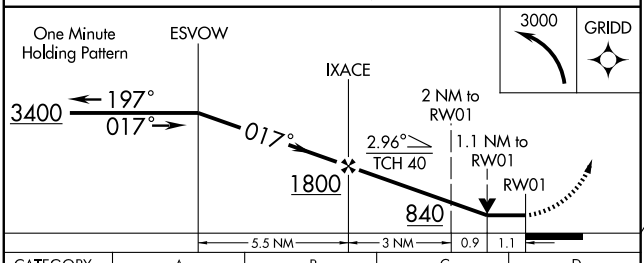
GPS RWY 1
OROVILLE MUNI (OVE)

NA — Circling not authorized northeast of Rwy 12-30

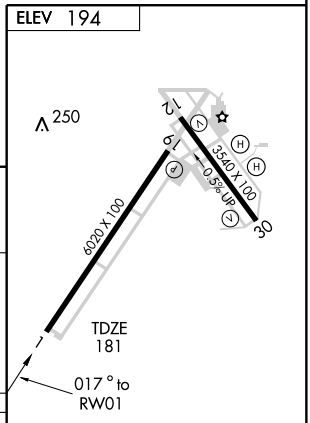
MISSED APPROACH: Climbing left turn to 3000 direct GRIDD WP and hold.

ASOS	NORCAL APP CON	UNICOM
121.425	125.4 259.1	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-1	560-1 379 (400-1)			NA
CIRCLING	600-1 406 (500-1)	660-1 466 (500-1)	660-1½ 466 (500-1½)	NA



HIRL Rwys 1-19 and 12-30 L

SW-2, 14 JAN 2010 to 11 FEB 2010

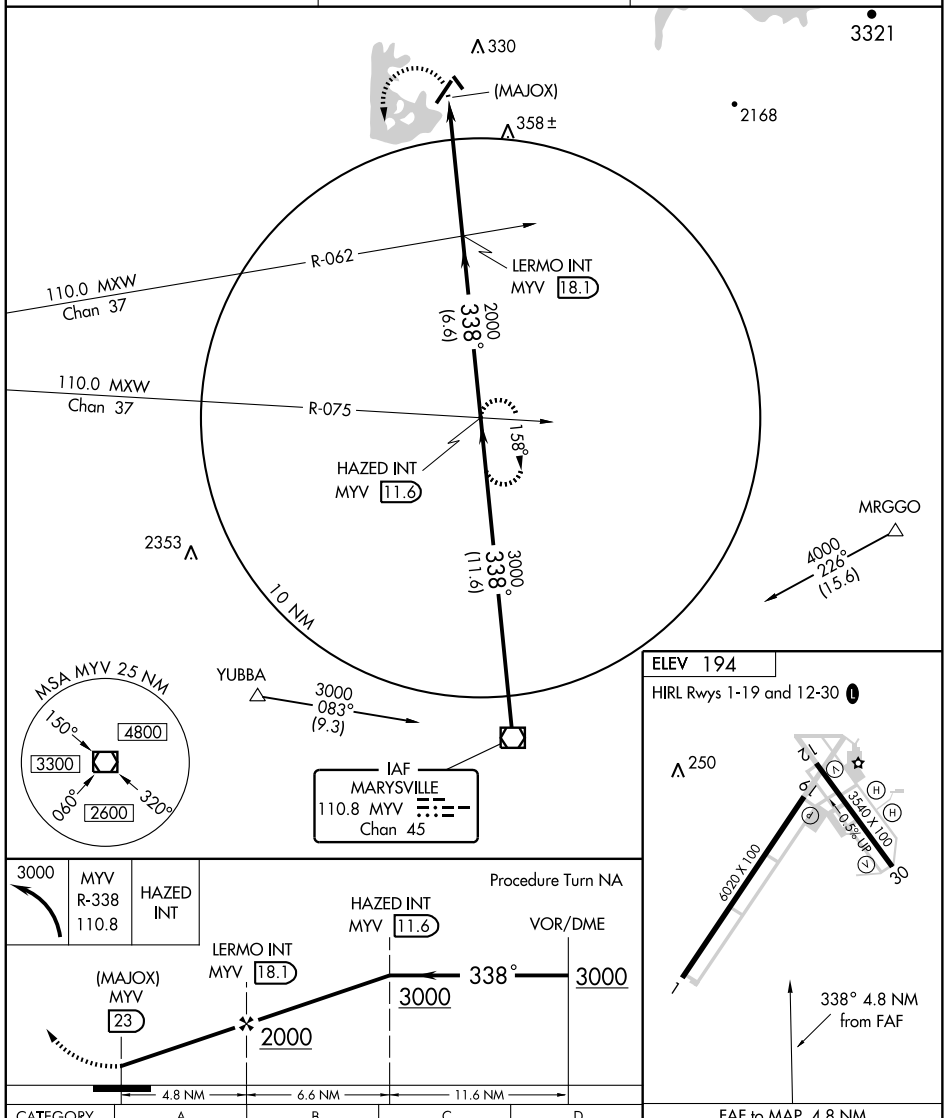
VORTAC MYV 110.8 Chan 45	APP CRS 338°	Rwy Idg N/A TDZE N/A Apt Elev 194

VOR or GPS-A
OROVILLE MUNI (OVE)

NA — Circling not authorized Northeast Rwy 12-30

MISSED APPROACH: Climbing left turn to 3000 via MYV R-338 to HAZED Int/MYV 11.6 DME and hold.

ASOS	NORCAL APP CON	UNICOM
121.425	125.4 259.1	122.8 (CTAF) L

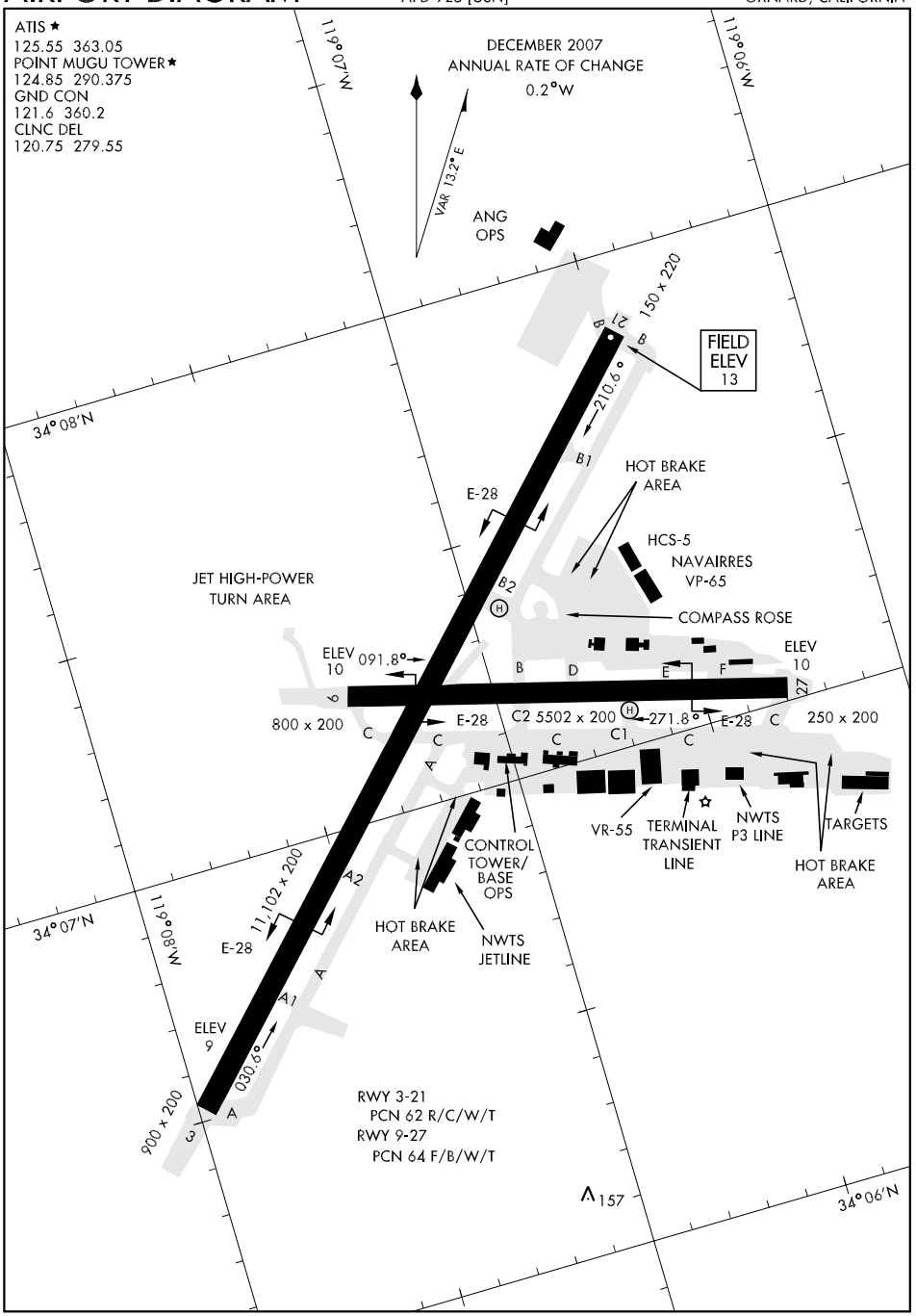


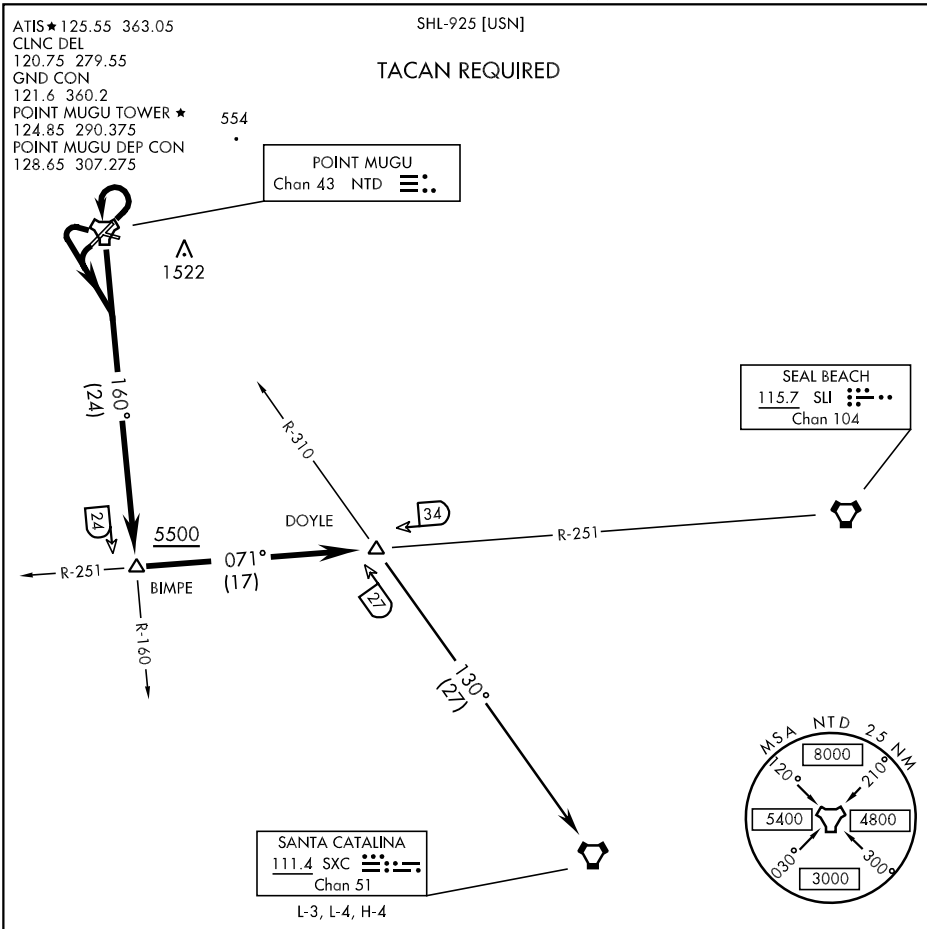
CATEGORY	A	B	C	D
CIRCLING	620-1 426 (500-1)	660-1 466 (500-1)	660-1½ 466 (500-1½)	NA

FAF to MAP 4.8 NM

Knots	60	90	120	150	180
Min:Sec	4:48	3:12	2:24	1:55	1:36

SW-2, 14 JAN 2010 to 11 FEB 2010


ATIS ★
125.55 363.05
POINT MUGU TOWER ★
124.85 290.375
GND CON
121.6 360.2
CLNC DEL
120.75 279.55
DECEMBER 2007
ANNUAL RATE OF CHANGE
0.2°W
VAR 13.2° E
ANG OPS
119°07'W
119°06'W
150 x 220
FIELD ELEV 13
210.6°
34°08'N
E-28
HOT BRAKE AREA
HCS-5
NAVAIRRES VP-65
JET HIGH-POWER TURN AREA
COMPASS ROSE
ELEV 10
091.8°
ELEV 10
800 x 200
C2 5502 x 200
271.8°
250 x 200
VR-55
TERMINAL TRANSIENT LINE
NWTS P3 LINE
TARGETS
HOT BRAKE AREA
CONTROL TOWER/ BASE OPS
HOT BRAKE AREA
NWTS JETLINE
34°07'N
11,102 x 200
E-28
ELEV 9
030.6°
900 x 200
RWY 3-21
PCN 62 R/C/W/T
RWY 9-27
PCN 64 F/B/W/T
157
34°06'N



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3: Climbing left turn within 3 DME of NTD TACAN, direct NTD, thence...

TAKE-OFF RWY 21, 27: Left turn, thence...

Intercept NTD R-160 and via NTD R-160 to BIMPE (NTD R-160/24 DME), then via SLI VORTAC R-251 to DOYLE, then via assigned routing. Cross BIMPE at or above 5500.

SANTA CATALINA TRANSITION (DOYLE 7 • SXC): DOYLE (SLI R-251/34 DME) to SANTA CATALINA VORTAC via SXC R-310. Then as filed.

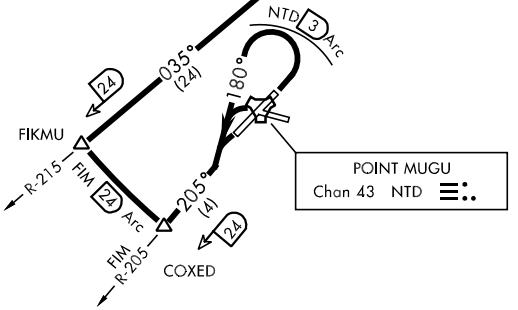
SW-3, 14 JAN 2010 to 11 FEB 2010

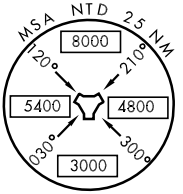
ATIS ★125.55 363.05
CLNC DEL
120.75 279.55
GND CON
121.6 360.2
POINT MUGU TOWER ★
124.85 290.375
POINT MUGU DEP CON
128.65 307.275

SHL-925 [USN]

FILLMORE
112.5 FIM
Chan 72
L-3, L-4, L-7, H-4, A-2

TACAN REQUIRED





SW-3, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3: Climbing left turn to heading 180° within 3 DME of NTD TACAN, thence...

TAKE-OFF RWY 21, 27: Left turn, thence...

Intercept FIM VORTAC R-205 to COXED (FIM R-205/24 DME), arc SW of FIM to FIKMU (FIM R-215/24 DME) via FIM 24 mile arc, then via FIM R-215 to FIM, then via assigned routing.

HI-TACAN RWY 21

TACAN	APCH CRS	Rwy ldg	TDZE	Arpt Elev
NTD Chan **43**	**213°**	**11,102**	**13**	**13**

JAL-925 [USN]

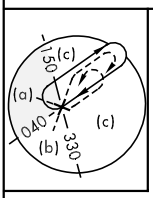
POINT MUGU NAS (NAVAL BASE VENTURA CO) (KNTD)

▼ * When ALS inop, increase CAT C vis to 1 mile, CAT DE to 1¼ miles.
** Alternate MAP, Fly visual to airport.
*** Circling not authorized E of Rwy 3-21 or when alternate MAP Rwy 21 in use.

MALSR A5

MISSED APPROACH: Climb to 5000 via NTD TACAN R-033 to NTD, then via NTD R-245 to WETET and hold.

ATIS ★	POINT MUGU APP CON	POINT MUGU TOWER ★	GND CON	CLNC DEL	ASR/PAR
125.55 363.05	128.65 307.275	124.85 290.375	121.6 360.2	120.75 279.55	



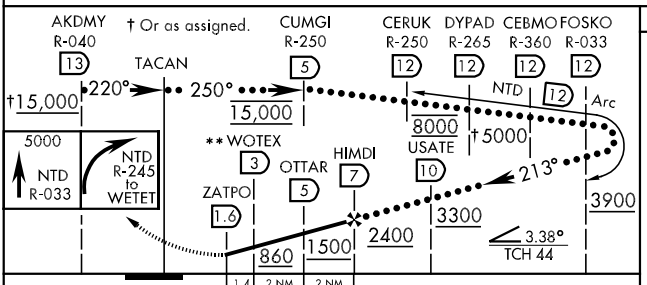
SAN MARCUS
15,000 096° (46)
CEBMO NTD 12
R-360
Max holding 265 KIAS
Max holding alt FL180
NTD 22
R-033
R-040
040°
220°
FOSKO NTD 12
NTD 12 Arc
USATE NTD 10
HIMDI NTD 7
OTTAR NTD 5
** WOTEX NTD 3
213°
220°
1814
1059
554
126
248
250°
15,000 226° (48)
IAF AKDMY NTD 13
PALMDALE
HIGH ALTITUDE FACILITIES
DYPAD NTD 12
R-265
CUMGI NTD 5
CERUK NTD 12
R-250
R-245
065°
245°
WETET NTD 12
NTD 16
3300
1965
WNW 10
15,000 294° (96)
OCEANSIDE
POINT MUGU Chan 43 NTD
MSA NTD 2.5 NM
8000
120°
210°
5400
4800
030°
300°
3000

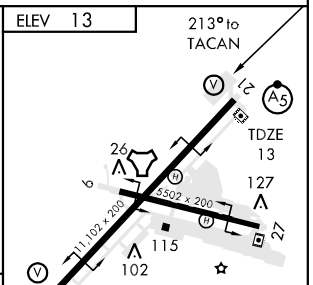
CAUTION:
Intmed seg length 5 NM.

VGSI and FNA seg descent angle and TCH not coincident.

NOT FOR CIVIL USE

EMERG SAFE ALT 100 NM 12,100





HIRL all Rwys

CATEGORY	C	D	E
S-21 *	380-¾	367 (400-¾)	
S-21 **	860-2	847 (900-2)	
CIRCLING ***	480-1½ 467 (500-1½)	580-2 567 (600-2)	
S-PAR 21	113-½	100 (100-½) GS 3.00°	

ILS or LOC/DME RWY 21

LOC I-RRG	APCH CRS	Rwy ldg 11,102
109.3	210°	TDZE 13
Chan 30		Arpt Elev 13

AL-925 [USN]

POINT MUGU NAS
(NAVAL BASE VENTURA CO)(KNTD)

* When ALS inop, increase vis (ILS) CAT ABCD to ¾ mile, (LOC) CAT ABC to 1 mile, CAT D to 1¼ miles.
** Circling not authorized E of Rwy 3-21 or when alternate MAP Rwy 21 in use.

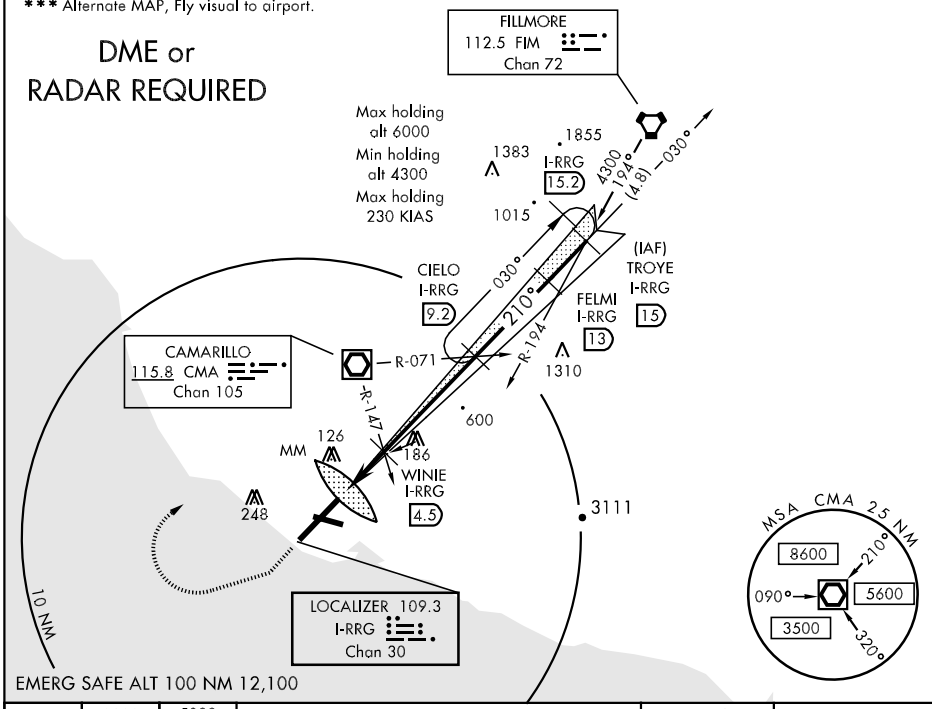
MALSR A5

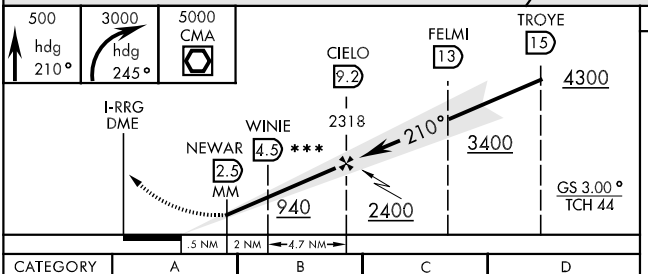
MISSED APPROACH: Climb to 500 via hdg 210°, then climbing right turn to 3000 via hdg 245°, then climbing right turn to 5000 direct CMA VOR/DME, then via CMA R-071 to CIELO and hold.

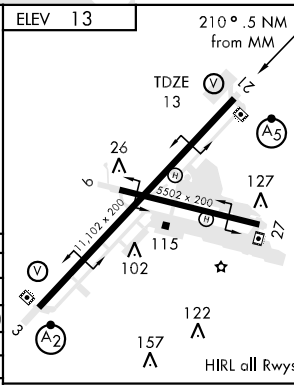
ATIS ★	POINT MUGU APP CON	POINT MUGU TOWER ★	GND CON	CLNC DEL	ASR/PAR
125.55 363.05	128.65 307.275	124.85 290.375	121.6 360.2	120.75 279.55	

*** Alternate MAP, Fly visual to airport.

DME or
RADAR REQUIRED







CATEGORY	A	B	C	D
S-ILS 21 *	213- ½ 200 (200-½)			
S-LOC 21 *	360- ½ 347 (400-½)			360-¾ 347 (400-¾)
S-ILS 21 ***	886-2 873 (900-2)			
S-LOC 21 ***	940-2 927 (1000-2)			
CIRCLING **	420-1 407 (500-1)	480-1 467 (500-1)	480-1½ 467 (500-1½)	580-2 567 (600-2)
S-PAR 21	113- ½ 100 (100-½) GS 3.0°			

FAF to MAP 6.7 NM					
Knots	60	90	120	150	180
Min:Sec	6:42	4:28	3:21	2:41	2:14

RNAV (GPS) RWY 3

POINT MUGU NAS
(NAVAL BASE VENTURA CO)(KNTD)

APCH CRS	Rwy ldg	11,102
030°	TDZE	11
	Arpt Elev	13

AL-925 [USN]

▼ * When ALS inop, increase CAT ABCD vis to 1 mile.
** Circling not authorized E of Rwy 3-21.
*** When ALS inop, increase CAT ABCD vis to ½ mile.

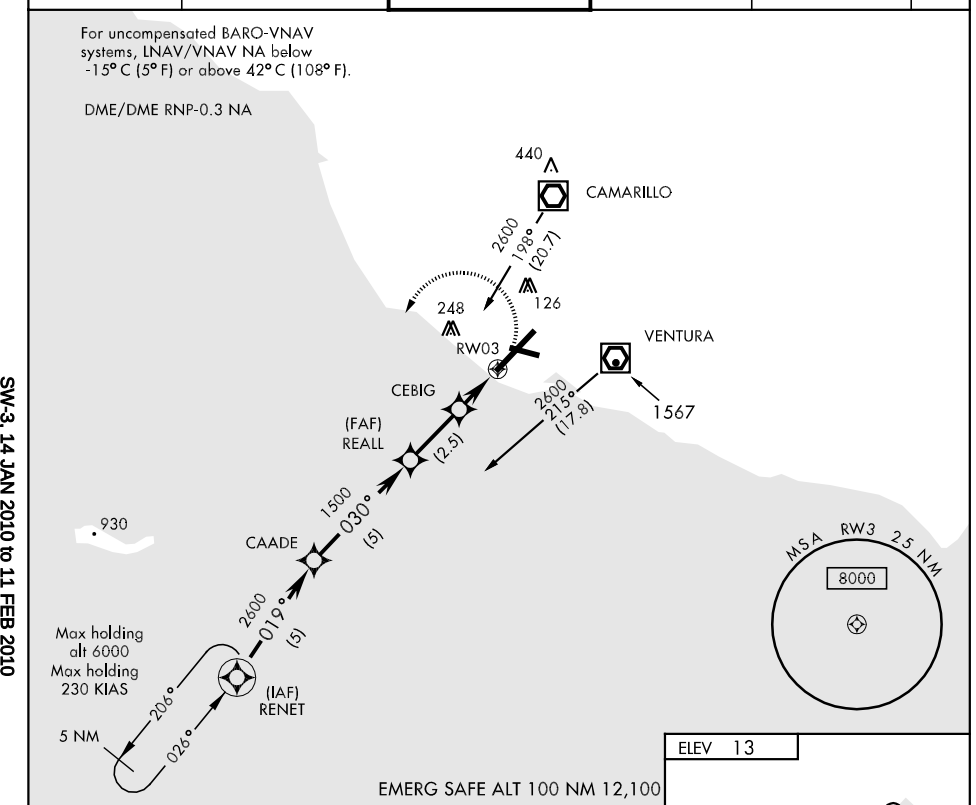
SALSF

MISSED APPROACH: Climb to 500, then climbing left turn to 2600 direct RENET and hold.

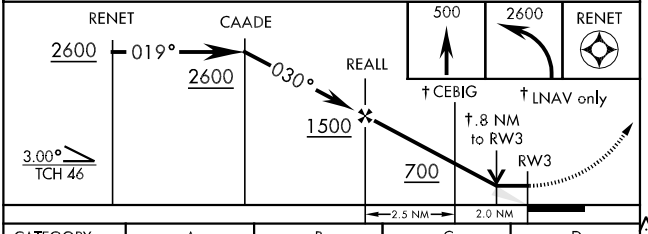
ATIS ★	POINT MUGU APP CON	POINT MUGU TOWER ★	GND CON	CLNC DEL	ASR/PAR
125.55 363.05	128.65 307.275	124.85 290.375	121.6 360.2	120.75 279.55	

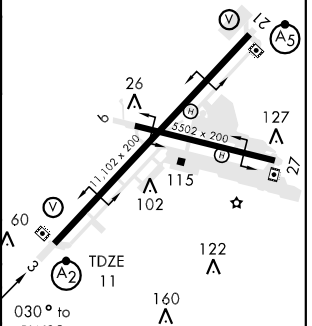
For uncompensated BARO-VNAV systems, LNAV/VNAV NA below -15° C (5° F) or above 42° C (108° F).

DME/DME RNP-0.3 NA



EMERG SAFE ALT 100 NM 12,100





CATEGORY	A	B	C	D
LNAV MDA *	320-¾ 309 (400-¾)			
LNAV/VNAV* DA	321-¾ 310 (400-¾)			
CIRCLING **	420-1 407 (500-1)	480-1 467 (500-1)	480-1½ 467 (500-1½)	580-2 567 (600-2)
S-PAR 3 ***	111-¼ 100 (100-¼) GS 3.0°			

SW-3, 14 JAN 2010 to 11 FEB 2010

RNAV (GPS) RWY 21

POINT MUGU NAS (KNTD)
(NAVAL BASE VENTURA CO)

APCH CRS	Rwy ldg	11,102
210°	TDZE	13
	Arpt Elev	13

AL-925 [USN]

* When ALS inop, increase CAT ABC vis to 1 mile, CAT D vis to 1¼ miles.
** When ALS inop, increase CAT ABCD vis to 1 mile.
*** Circling not authorized E of Rwy 3-21.

MALSR

MISSED APPROACH: Climb to 2600 direct RENET and hold.

ATIS ★	POINT MUGU APP CON	POINT MUGU TOWER ★	GND CON	CLNC DEL	ASR/PAR
125.55 363.05	128.65 307.275	124.85 290.375	121.6 360.2	120.75 279.55	

For uncompensated BARO-VNAV systems, LNAV/VNAV NA below -15° C (5° F) or above 37° C (99° F).

DME/DME RNP-0.3 NA

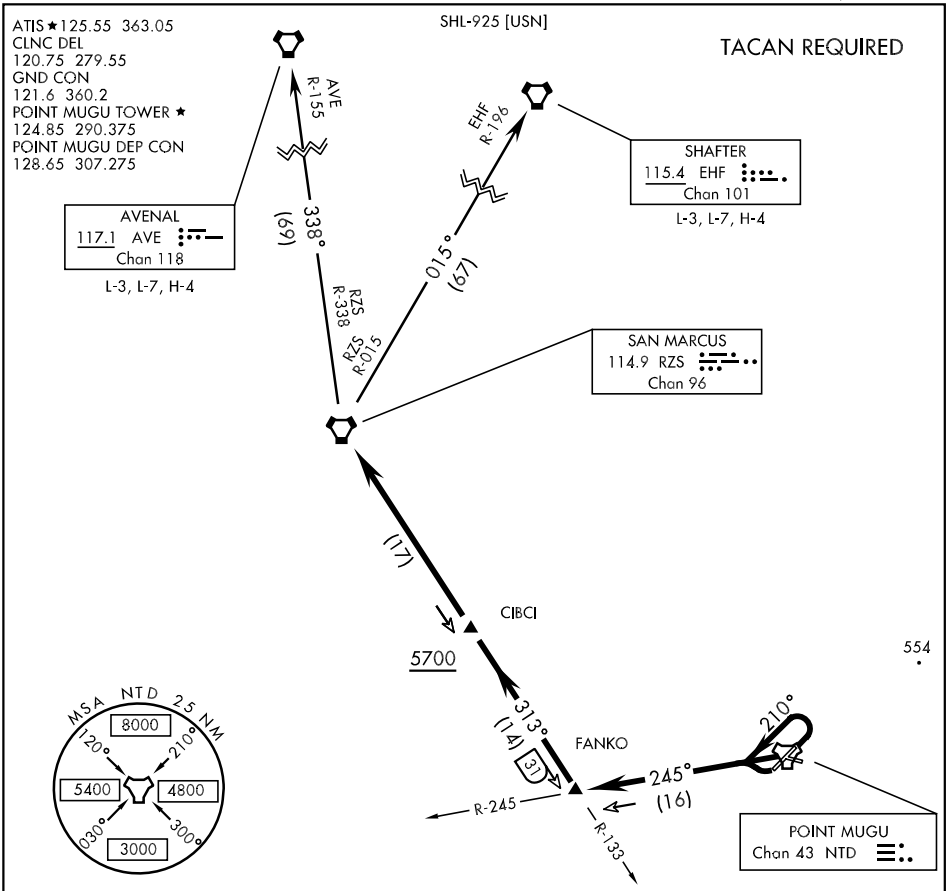
FILLMORE 2287
1855
4000 (4.8) 194°
213°
4 NM
033°
(IAF) TROYE
Mand holding alt 4000
Max holding 230 KIAS
2400
210° (5.8)
CAMARILLO
4000
047° (9.4)
1310
(FAF) CIELO
900
210° (4.6)
KOCKA
126
554
Max airspeed from IAF to FAF 230 KIAS
RW21
248
MSA RW21 25 NM
8000
930
RENET
5 NM
206°
026°

EMERG SAFE ALT 100 NM 12,100

2600
RENET
† LNAV only
TROYE
033°
4000
213°
4000
CIELO
210°
2400
RW21
† KOCKA
† 1 NM to RW21
900
GS 3.06°
TCH 44
2.6 NM
4.6 NM

ELEV 13
210° to RW 21
TDZE 13
26
6
5502 x 200
125
27
11,102 x 200
115
102
122
157
3
HIRL Rwy 3-21, 9-27

CATEGORY	A	B	C	D
LNAV MDA*	380-¾ 367 (400-¾)			380-1 367 (400-1)
LNAV/VNAV** DA	286-¾ 273 (300-¾)			
CIRCLING ***	420-1 407 (500-1)	480-1 467 (500-1)	480-1½ 467 (500-1½)	580-2 567 (600-2)
S-PAR 21	111-¼ 100 (100-¼) GS 3.0°			



SW-3, 14 JAN 2010 to 11 FEB 2010

▼

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3: Climbing left turn to 210° within 3 DME of NTD TACAN, thence...

TAKE-OFF RWY 21: Turn right, thence...

TAKE-OFF RWY 27: Turn left, thence...

Intercept NTD R-245 and via NTD R-245 to FANKO (NTD R-245/16 DME), then via RZS VORTAC R-133 to RZS VORTAC, then via assigned routing.
Cross CIBCI (RZS R-133/17 DME) at or above 5700.

AVENAL TRANSITION (RZS 7•AVE): From over SAN MARCUS VORTAC via RZS R-338 to AVENAL VORTAC. Cross SAN MARCUS VORTAC at or above 7900.

SHAFTER TRANSITION (RZS 7•EHF): From over SAN MARCUS VORTAC via RZS R-015 to SHAFTER VORTAC. Cross SAN MARCUS VORTAC at or above 8900.

TACAN or VOR/DME RWY 3

VORTAC FIM 112.5 Chan 72	APCH CRS 025°	Rwy ldg 11,102 TDZE 11 Arpt Elev 13

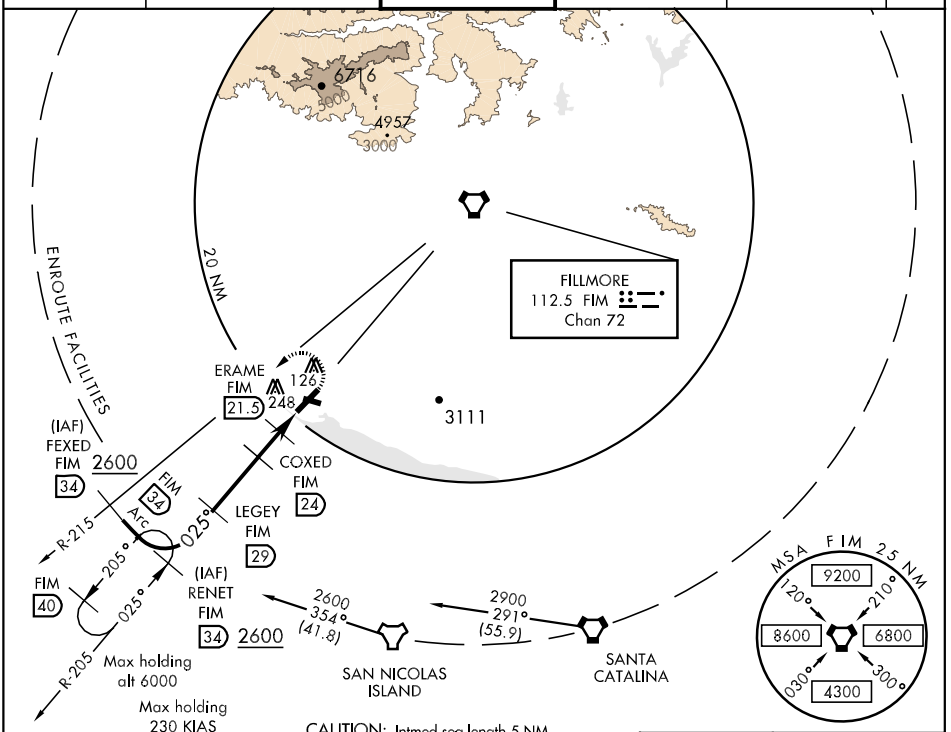
AL-925 [USN] POINT MUGU NAS (NAVAL BASE VENTURA CO) (KNTD)

* When ALS inop, increase CAT AB vis to 1 mile, CAT CD to 1¼ miles, CAT E to 1½ miles.
** Circling not authorized E of Rwy 3-21.

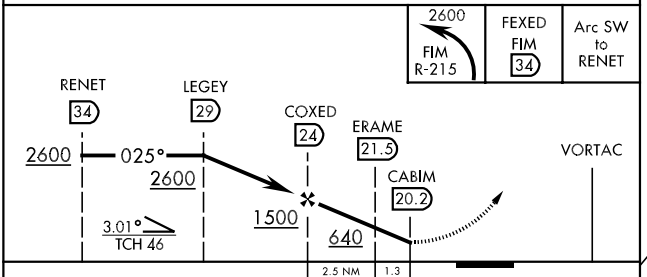
SALSF

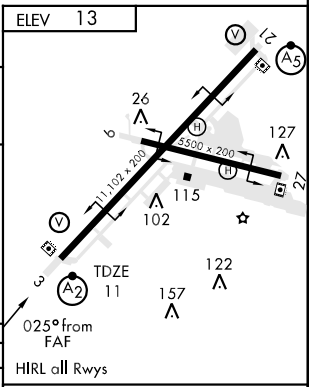
MISSED APPROACH: Climbing left turn to 2600. Intercept the FIM VORTAC R-215, then via FIM R-215 to FEXED, Arc SW of FIM via the 34 DME arc to RENET and hold.

ATIS *	POINT MUGU APP CON	POINT MUGU TOWER *	GND CON	CLNC DEL	ASR/ PAR
125.55 363.05	128.65 307.275	124.85 290.375	121.6 360.2	120.75 279.55	



EMERG SAFE ALT 100 NM 12,100





HIRL all Rwys

CATEGORY	A	B	C	D	E
S-3 *	420-¾ 409 (500-¾)		420-1 409 (500-1)		420-1¼ 409 (500-1¼)
CIRCLING **	420-1 407 (500-1)	480-1 467 (500-1)	480-1½ 467 (500-1½)	580-2 567 (600-2)	NA

FAF to MAP 3.8 NM					
Knots	60	90	120	150	180
Min:Sec	3:48	2:32	1:54	1:31	1:16

TACAN RWY 21

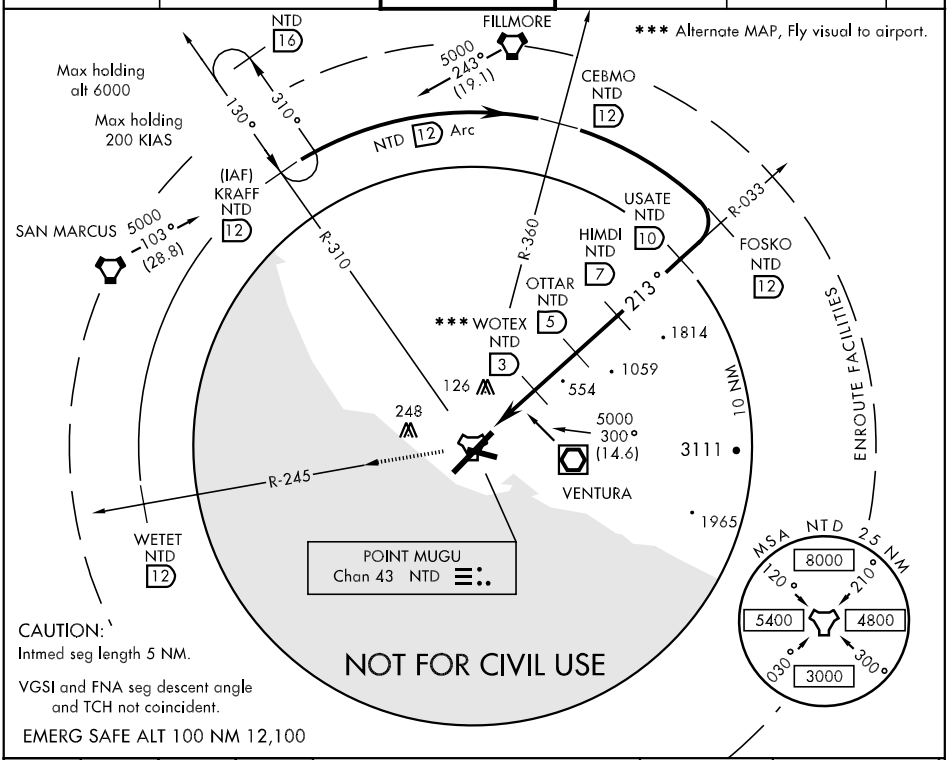
TACAN NTD Chan 43	APCH CRS 213°	Rwy ldg 11,102 TDZE 13 Arpt Elev 13	AL-925 [USN]	POINT MUGU NAS (NAVAL BASE VENTURA CO) (KNTD)

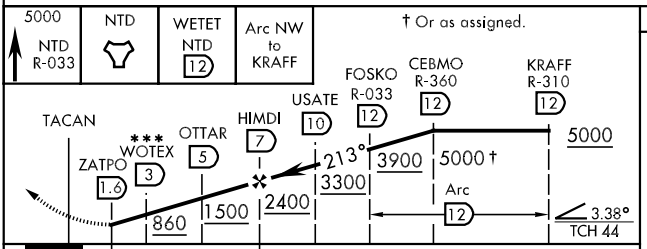
* When ALS inop, increase vis CAT ABC to 1 mile, CAT D to 1¼ miles.
** Circling not authorized E of Rwy 3-21 or when alternate MAP Rwy 21 in use.

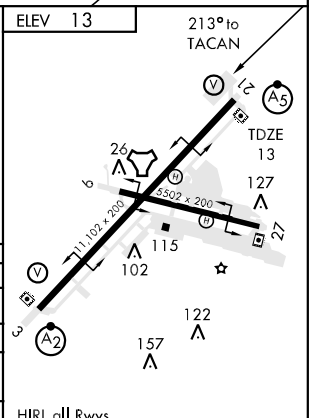
MALSR

MISSED APPROACH: Climb to 5000 via NTD TACAN R-033 to NTD, then via NTD R-245 to WETET. Arc NW on NTD 12 DME arc to KRAFF and hold.

ATIS ★	POINT MUGU APP CON	POINT MUGU TOWER ★	GND CON	CLNC DEL	ASR/ PAR
125.55 363.05	128.65 307.275	124.85 290.375	121.6 360.2	120.75 279.55	







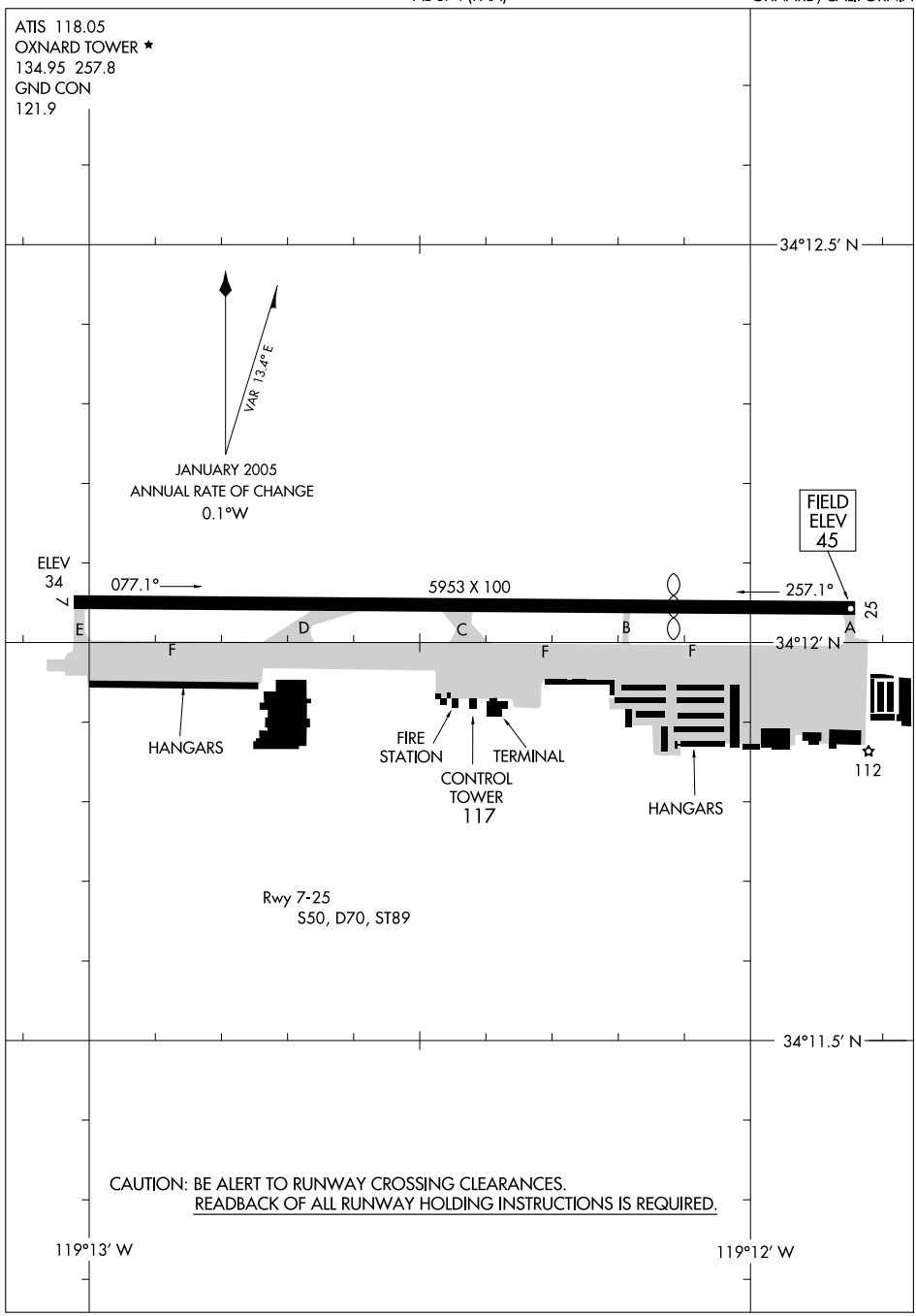
CATEGORY	A	B	C	D	E
S-21 *	380-½ 367 (400-½)		380-¾ 367 (400-¾)		NA
S-21 ***	860-2 847 (900-2)				NA
CIRCLING **	420-1 407 (500-1)	480-1 467 (500-1)	480-1½ 467 (500-1½)	580-2 567 (600-2)	NA
S-PAR 21	113-½ 100 (100-½) GS 3.0°				

SW-3, 14 JAN 2010 to 11 FEB 2010

AIRPORT DIAGRAM

AL-674 (FAA)

OXNARD (OXR)
OXNARD, CALIFORNIA



SW-3, 14 JAN 2010 to 11 FEB 2010

CAMARILLO FOUR DEPARTURE

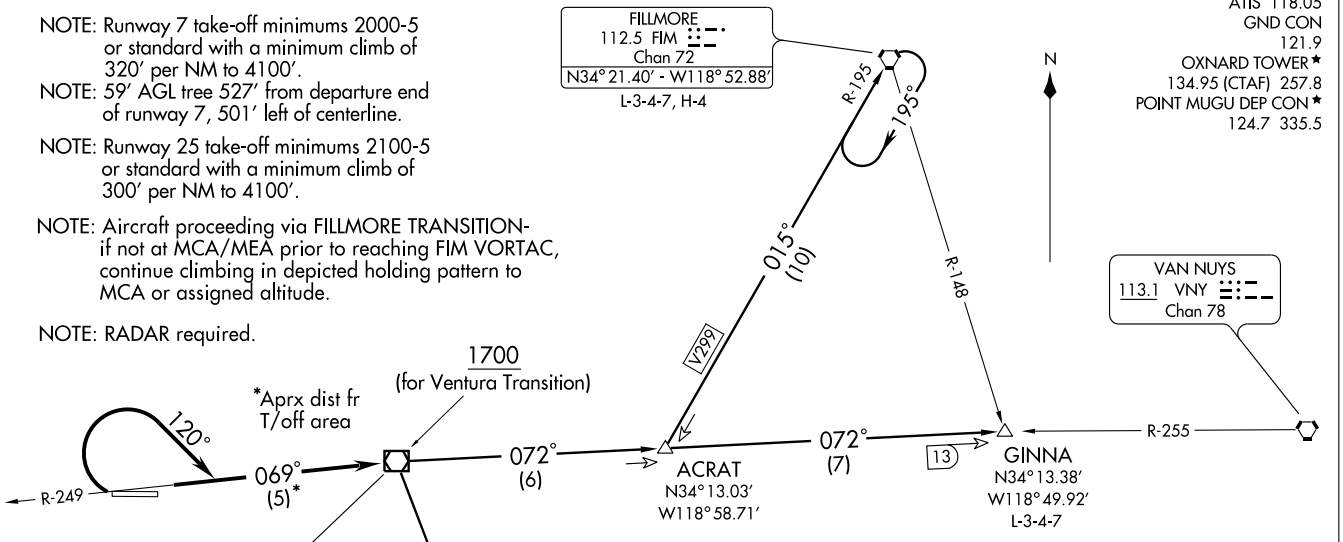
NOTE: Runway 7 take-off minimums 2000-5 or standard with a minimum climb of 320′ per NM to 4100′.

NOTE: 59′ AGL tree 527′ from departure end of runway 7, 501′ left of centerline.

NOTE: Runway 25 take-off minimums 2100-5 or standard with a minimum climb of 300′ per NM to 4100′.

NOTE: Aircraft proceeding via FILLMORE TRANSITION- if not at MCA/MEA prior to reaching FIM VORTAC, continue climbing in depicted holding pattern to MCA or assigned altitude.

NOTE: RADAR required.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 7: Climb to 8000 (or assigned altitude) via CMA R-249 to CMA VOR/DME. . . .

TAKE-OFF RUNWAY 25: Turn right heading 120° to intercept and climb to 8000 (or assigned altitude) via CMA R-249 to CMA VOR/DME. . . . . .thence via (assigned route) or (transition).

FILLMORE TRANSITION (CMA4.FIM): From over CMA VOR/DME via CMA R-072 to ACRAT INT then via FIM R-195 to FIM VORTAC.

GINNA TRANSITION (CMA4.GINNA): From over CMA VOR/DME via CMA R-072 to GINNA INT.

VENTURA TRANSITION (CMA4.VTU): From over CMA VOR/DME via CMA R-144 and VTU R-324 to VTU VOR/DME.

LOC I-OXR	APP CRS	Rwy Idg	4576
108.7	256°	TDZE	41
		Apt Elev	45

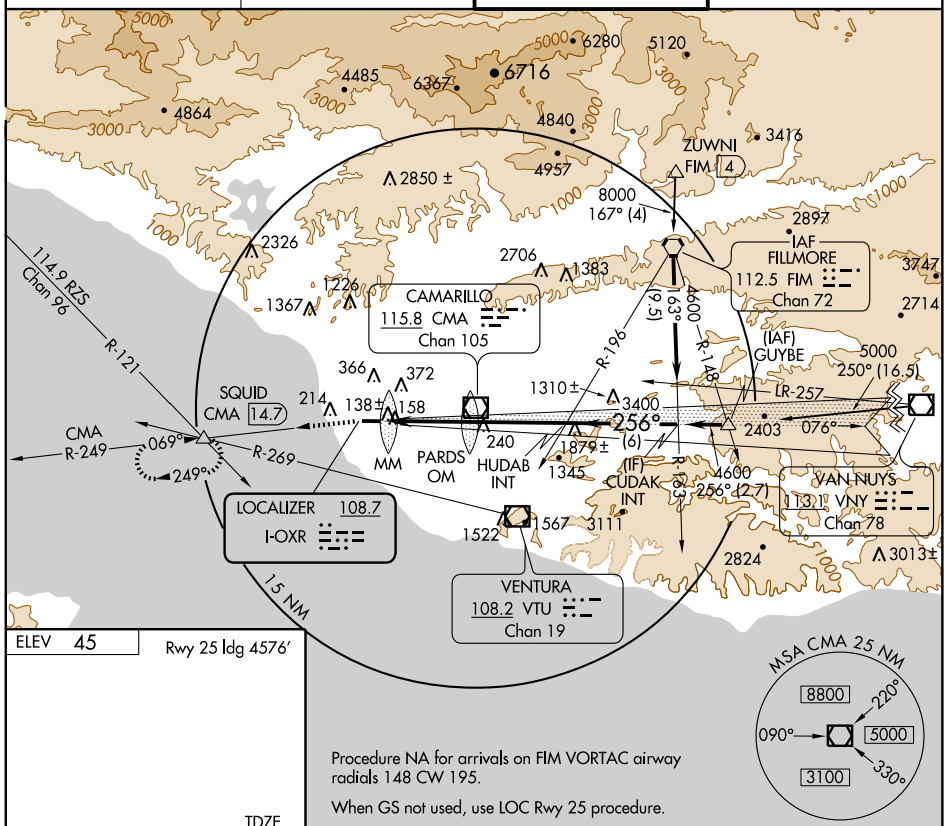
ILS RWY 25
OXNARD (OXR)

Inoperative table does not apply.
Visibility reduction by helicopters NA.
Autopilot coupled approach NA below 867.
When local altimeter not received, use Camarillo altimeter setting and increase DA to 309 feet.

MALSR

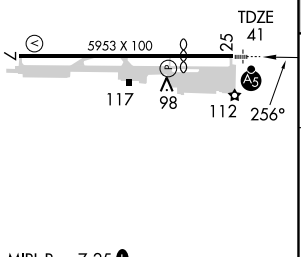
MISSED APPROACH: Climb to 2000 via CMA VOR/DME R-249 to SQUID INT/CMA 14.7 DME and hold.

ATIS	POINT MUGU APP CON ★	OXNARD TOWER ★	GND CON
118.05	124.7 335.5	134.95 (CTAF) L 257.8	121.9



ELEV 45

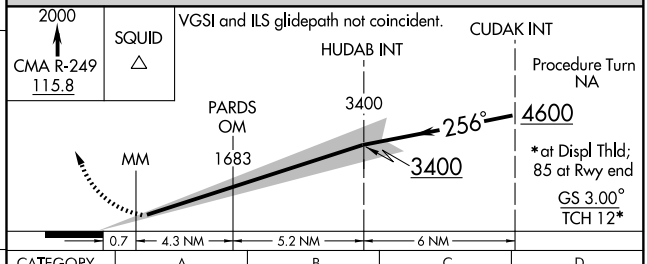
Rwy 25 ldg 4576′



MIRL Rwy 7-25 L

Procedure NA for arrivals on FIM VORTAC airway radials 148 CW 195.

When GS not used, use LOC Rwy 25 procedure.



Knots	60	90	120	150	180
Min:Sec					

CATEGORY	A	B	C	D
S-ILS 25	291-1	250 (300-1)		

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC I-OXR	APP CRS	Rwy Idg	4576
108.7	256°	TDZE	41
		Apt Elev	45

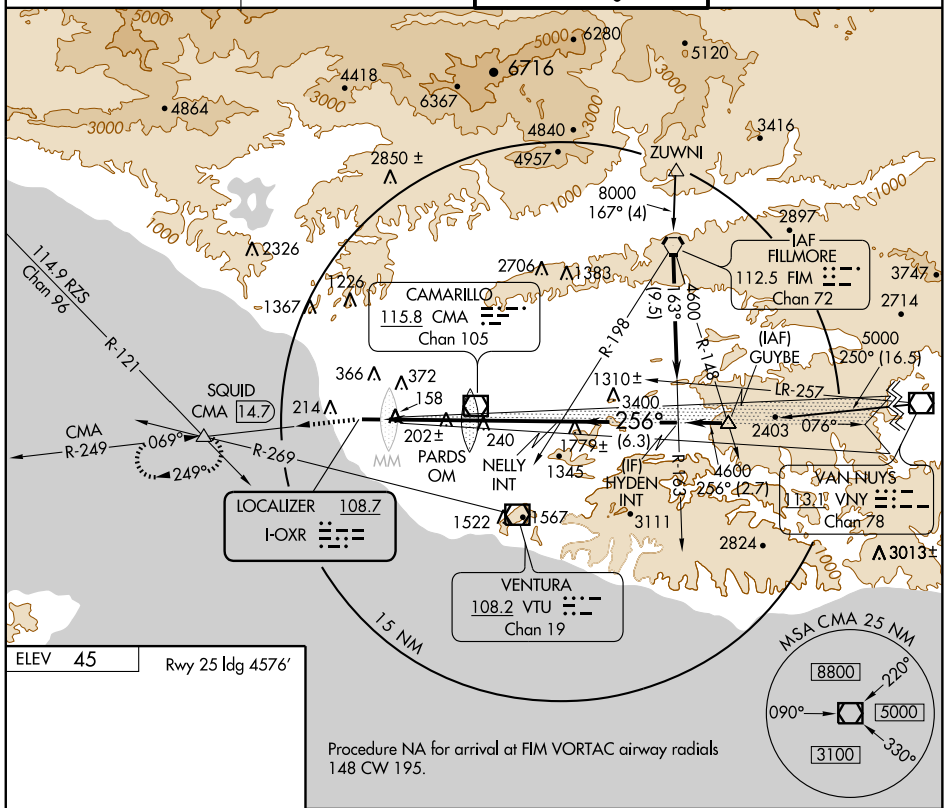
LOC RWY 25
OXNARD (OXR)

T A Inoperative table does not apply. Visibility reduction by helicopters NA. If local altimeter setting not received, use Camarillo altimeter setting and increase all MDAs 20 feet.

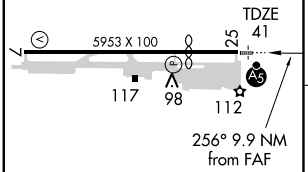
MALSR A5

MISSED APPROACH: Climb to 2000 via CMA VOR/DME R-249 to SQUID INT/CMA 14.7 DME and hold.

ATIS	POINT MUGU APP CON ★	OXNARD TOWER ★	GND CON
118.05	124.7 335.5	134.95 (CTAF) L 257.8	121.9

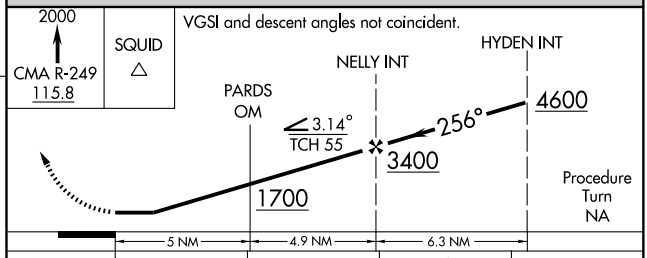


ELEV 45 Rwy 25 Idg 4576′



MIRL Rwy 7-25 L

FAF to MAP 9.9 NM					
Knots	60	90	120	150	180
Min:Sec	9:54	6:36	4:57	3:58	3:18



CATEGORY	A	B	C	D
S-LOC 25	460-1 419 (500-1)		460-1¼ 419 (500-1¼)	
CIRCLING	500-1 455 (500-1)		500-1½ 455 (500-1½)	700-2 655 (700-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

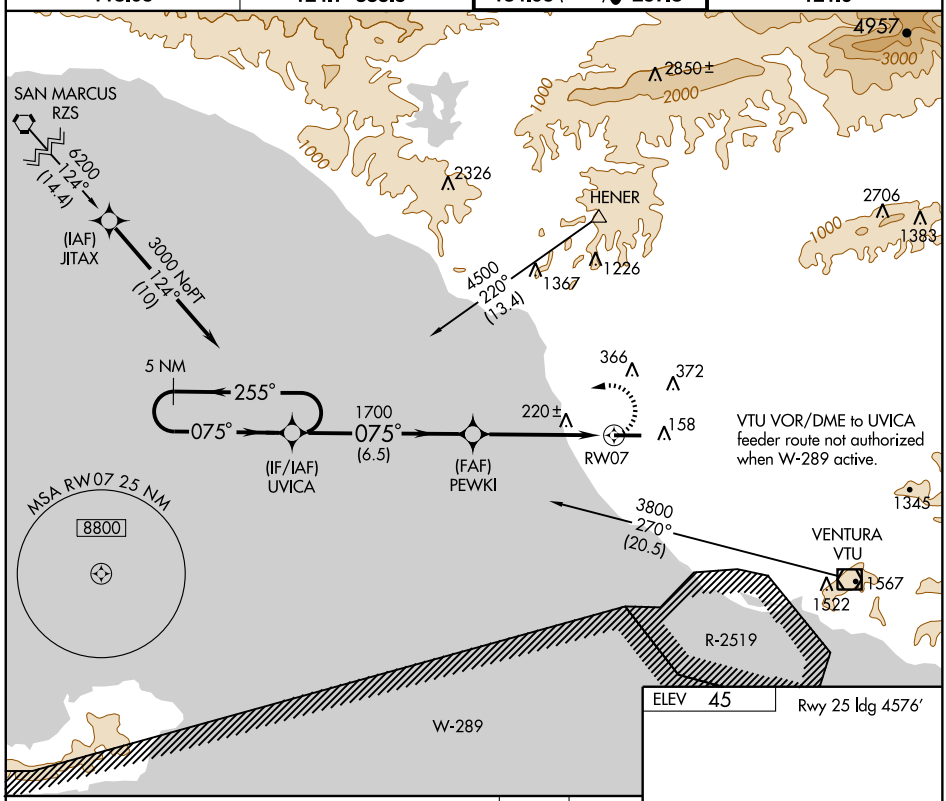
APP CRS	Rwy Idg	5953
075°	TDZE	37
	Apt Elev	45

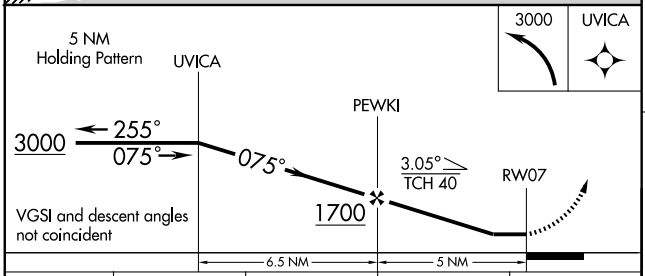
RNAV (GPS) RWY 7
OXNARD (OXR)

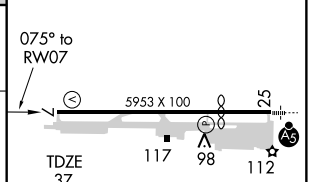
DME/DME RNP -0.3 NA.

MISSED APPROACH: Climbing left turn to 3000 direct UVICA and hold.

ATIS	POINT MUGU APP CON★	OXNARD TOWER★	GND CON
118.05	124.7 335.5	134.95 (CTAF) L 257.8	121.9







ELEV 45

Rwy 25 ldg 4576′

CATEGORY	A	B	C	D
LNAV MDA	480-1	443 (500-1)	480-1¼ 443 (500-1¼)	560-1¾ 523 (600-1¾)
CIRCLING	500-1	455 (500-1)	500-1½ 455 (500-1½)	700-2 655 (700-2)

MIRL Rwy 7-25 L

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	4576
CH 86299	256°	TDZE	41
W25A		Apt Elev	45

RNAV (GPS) RWY 25

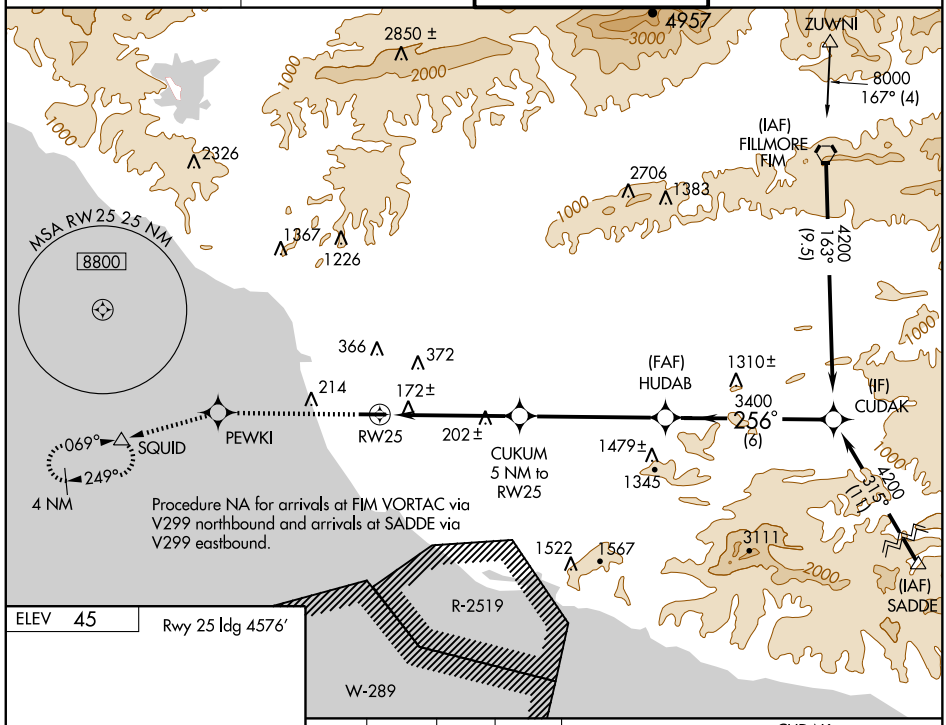
OXNARD (OXR)

Inoperative table does not apply. DME/DME RNP -0.3 NA.
Visibility reductions by helicopters NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (121°F).
If local altimeter setting not received, use Camarillo altimeter setting and increase LPV DA/MDAs 20 feet, and LNAV/VNAV DA 55 feet.
Baro-VNAV NA when using Camarillo altimeter setting.

MALSR

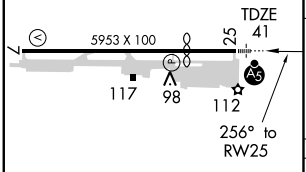
MISSED APPROACH: Climb to 2000 direct PEWKI and via 239° track to SQUID and hold.

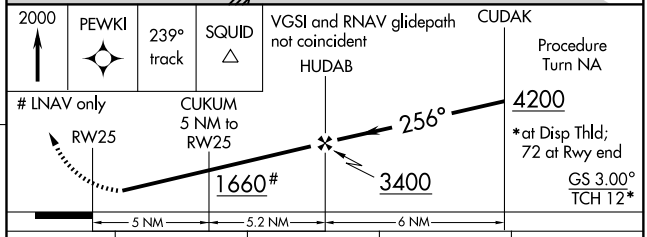
ATIS	POINT MUGU APP CON★	OXNARD TOWER★	GND CON
118.05	124.7 335.5	134.95 (CTAF) L 257.8	121.9



ELEV 45

Rwy 25 Idg 4576′



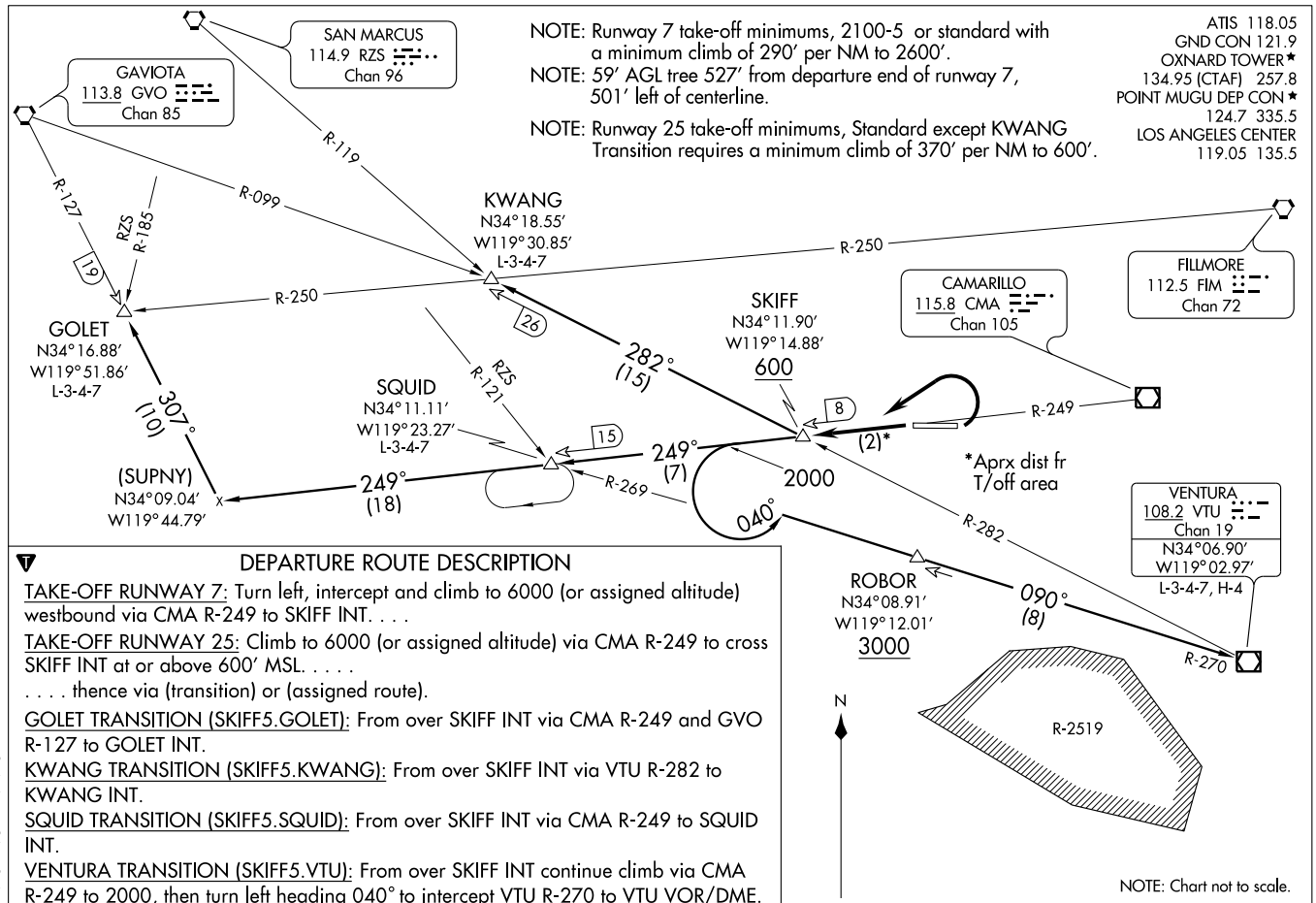


CATEGORY	A	B	C	D
LPV DA	412-1½ 371 (400-1½)			
LNAV/VNAV DA	452-1½ 411 (500-1½)			
LNAV MDA	460-1 419 (500-1)		460-1¼ 419 (500-1¼)	
CIRCLING	500-1 455 (500-1)		500-1½ 455 (500-1½)	700-2 655 (700-2)

MIRL Rwy 7-25 L

SW-3, 14 JAN 2010 to 11 FEB 2010

SKIFF FIVE DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 7: Turn left, intercept and climb to 6000 (or assigned altitude) westbound via CMA R-249 to SKIFF INT. . . .

TAKE-OFF RUNWAY 25: Climb to 6000 (or assigned altitude) via CMA R-249 to cross SKIFF INT at or above 600′ MSL. . . . .

. . . . thence via (transition) or (assigned route).

GOLET TRANSITION (SKIFF5.GOLET): From over SKIFF INT via CMA R-249 and GVO R-127 to GOLET INT.

KWANG TRANSITION (SKIFF5.KWANG): From over SKIFF INT via VTU R-282 to KWANG INT.

SQUID TRANSITION (SKIFF5.SQUID): From over SKIFF INT via CMA R-249 to SQUID INT.

VENTURA TRANSITION (SKIFF5.VTU): From over SKIFF INT continue climb via CMA R-249 to 2000, then turn left heading 040° to intercept VTU R-270 to VTU VOR/DME.

OXNARD, CALIFORNIA AL-674 (FAA)

VOR/DME CMA	APP CRS	Rwy Idg	4576
115.8	247°	TDZE	40
Chan 105		Apt Elev	43

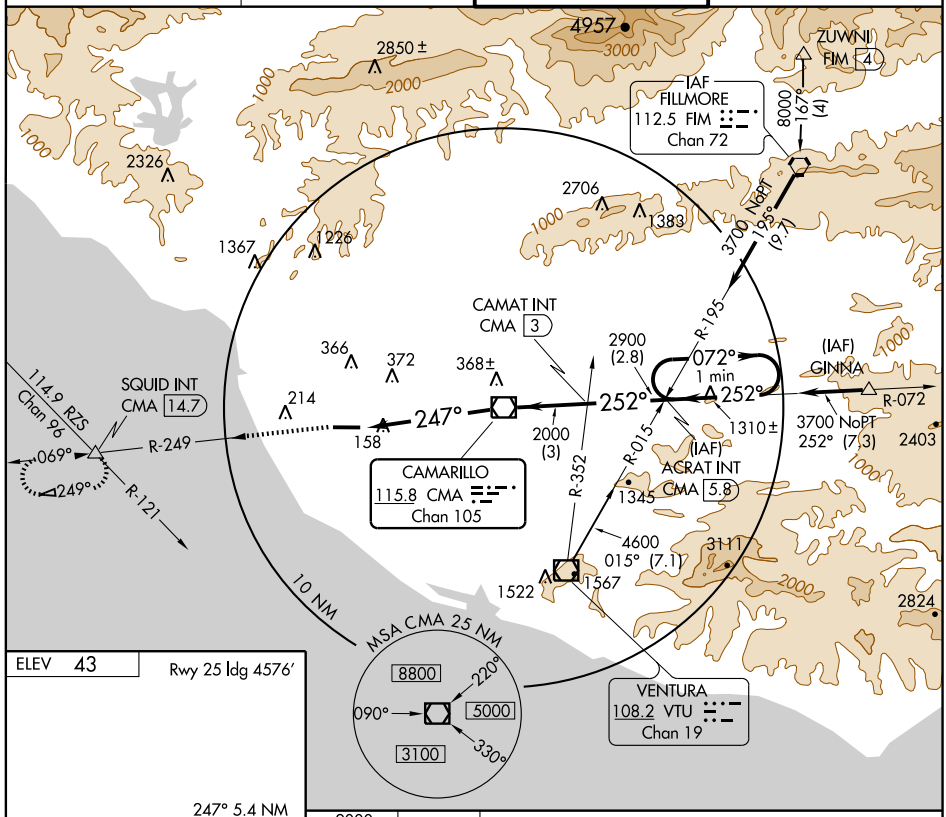
VOR RWY 25
OXNARD (OXR)

Inoperative table does not apply.

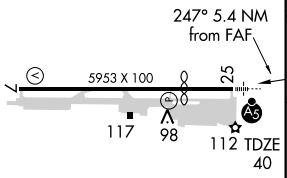
MALSR

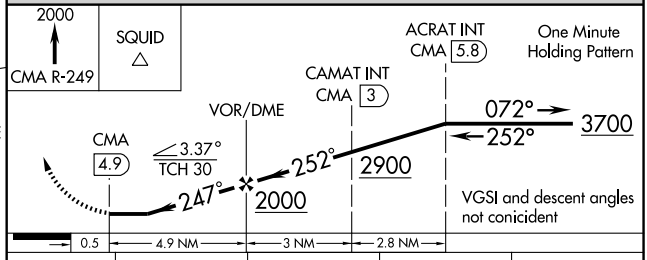
MISSED APPROACH: Climb to 2000 via CMA R-249 to SQUID Int/CMA 14.7 DME and hold.

ATIS	POINT MUGU APP CON★	OXNARD TOWER★	GND CON
118.05	124.7 335.5	134.95 (CTAF) Ⓛ 257.8	121.9



ELEV 43 Rwy 25 ldg 4576'





MIRL Rwy 7-25 Ⓛ

FAF to MAP 4.9 NM

Knots	60	90	120	150	180
Min:Sec	4:54	3:16	2:27	1:58	1:38

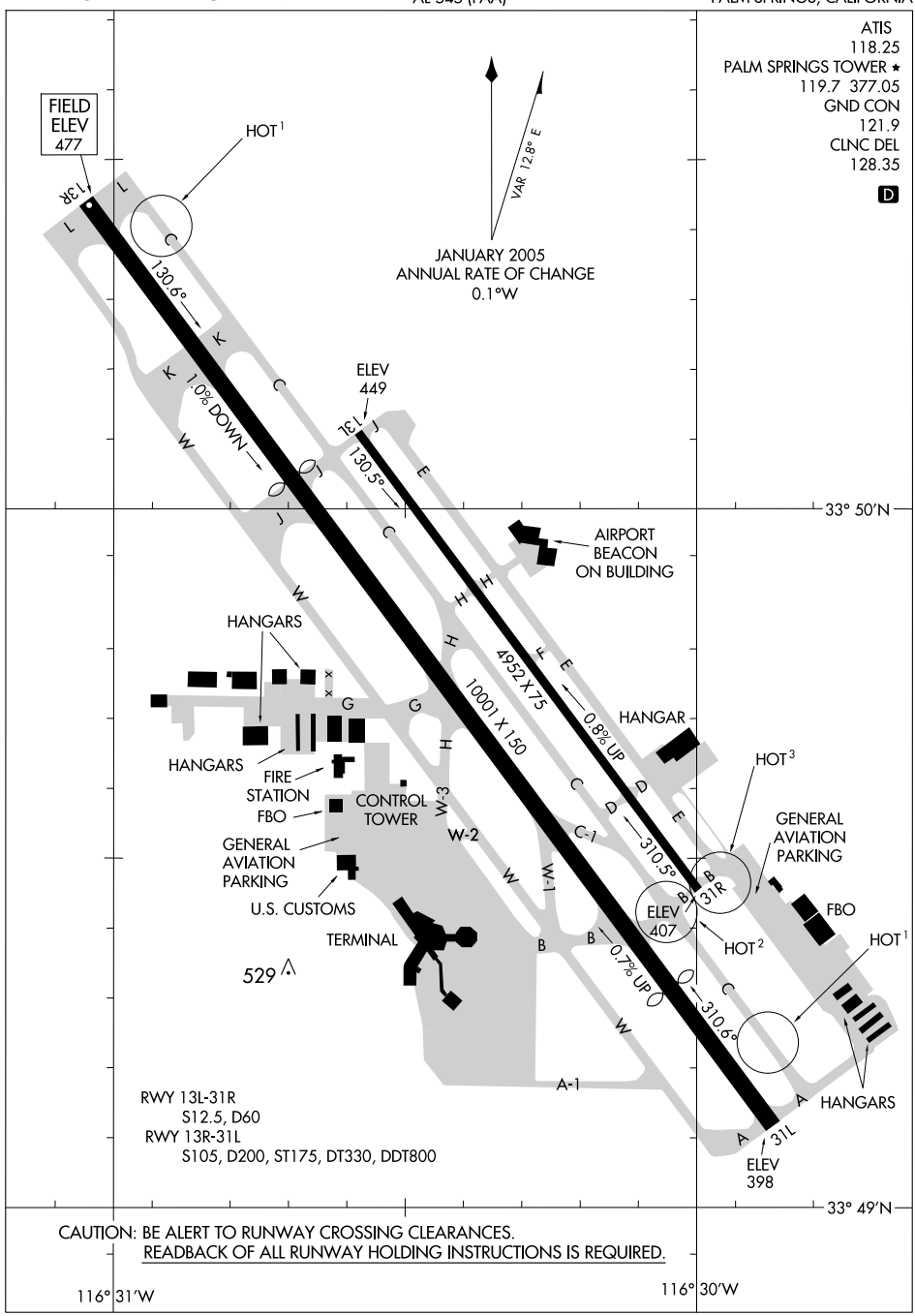
CATEGORY	A	B	C	D
S-25	480-1	440 (500-1)	480-1¼ 440 (500-1¼)	480-1½ 440 (500-1½)
CIRCLING	500-1	457 (500-1)	500-1½ 457 (500-1½)	700-2 657 (700-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

AIRPORT DIAGRAM

AL-545 (FAA)

PALM SPRINGS INTL (PSP)
PALM SPRINGS, CALIFORNIA



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

SW-3, 14 JAN 2010 to 11 FEB 2010

ATIS 118.25
GND CON 121.9
SOCAL DEP CON
126.7 370.95 (W-N)
135.275 251.1 (NE-SW)
PSP ATCT
119.7 377.05

N

MINIMUM CROSSING ALTITUDES
FOR PSP VORTAC
V16-370-372: 11600 W
V370: 6200 NE
V386: 7600 NW
V388: 6300 W
V137: 11200 NW

DAGGETT
113.2 DAG
Chan 79
N34°57.75' - W116°34.69'
L-7, H-4

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 13L/R: Climbing left turn heading 100° to cross PSP VORTAC R-176, then turn left heading 040° to intercept PSP R-104, thence . . .

TAKE-OFF RUNWAYS 31L/R: Climb heading 310° to cross PSP VORTAC R-268, then turn right direct PSP VORTAC, thence . . . . . climb via PSP R-104 to EMRUD INT/PSP 10 DME, then turn right direct PSP VORTAC. If not at MEA/MCA at PSP VORTAC, climb in PSP VORTAC holding pattern until reaching MEA/MCA for assigned route of flight.

R-081
V386
SOGGI
N34°30.18'
W116°40.70'
PALMDALE
114.5 PMD
Chan 92
N34°37.88' - W118°03.83'
L-3-4-7, H-4
YUCCA
N34°06.21'
W116°31.26'
R-254
R-231
PARADISE
112.2 PDZ
Chan 59
N33°55.10' - W117°31.80'
L-3-4, H-4
DEWAY
N33°56.92'
W116°44.40'
R-329
V386
PALM SPRINGS
115.5 PSP
Chan 102
N33°52.20'
W116°25.79'
R-053
TWENTYNINE PALMS
114.2 TNP
Chan 89
N34°06.73' - W115°46.19'
L-4, H-4
V388
R-072
R-078
V388
R-268
R-274
R-260
V370
V16-370
V16-370-372
HOMELAND
113.4 HDF
N33°46.58'
W117°11.12'
L-4
R-051
V372
R-054
R-021
BANDS
N33°53.38'
W116°50.97'
OCEANSIDE
115.3 OCN
Chan 100
310°
100°
040°
304°
124°
104°
(10)
R-176
R-124
R-088
V16-372
R-268
EMRUD
N33°47.65'
W116°15.09'
BLYTHE
117.4 BLH
Chan 121
N33°35.76' - W114°45.67'
L-4-5, H-4
THERMAL
116.2 TRM
Chan 109
V137
R-322

TAKE-OFF OBSTACLE NOTES

Rwy 13L: Trees beginning 299' from DER, 530' left of centerline, up to 66' AGL/465' MSL. Hangar 935' from DER, 552' left of centerline, 31' AGL/440' MSL

Rwy 13R: Trees beginning 1170' from DER, 239' right of centerline, up to 100' AGL/599' MSL. Poles beginning 815' from DER, 209' right of centerline, up to 44' AGL/433' MSL. LT 843' from DER, 441' right of centerline, 38' AGL/427' MSL. Antenna 1642' from DER, 26' right of centerline, 53' AGL/442' MSL..

Rwy 31L: Poles beginning 1641' from DER, 125' right of centerline, up to 31' AGL/560' MSL. Towers beginning 2418' from DER, 402' left of centerline, up to 59' AGL/560' MSL. Tree 3016' from DER, 66' right of centerline, 43' AGL/562' MSL.

Rwy 31R: Multiple trees and bushes beginning 305' from DER, 233' right of centerline, up to 48' AGL/507' MSL. Vent on bldg 919' from DER, 399' right of centerline, 15' AGL/474' MSL.

TAKE-OFF MINIMUMS

Rwy 13L, Standard with minimum climb of 440' per NM to 2300.
Rwy 13R, Standard with minimum climb of 422' per NM to 2300.
Rwy 31R, Standard with minimum climb of 405' per NM to 2700.
Rwy 31L, Standard with minimum climb of 386' per NM to 2700.

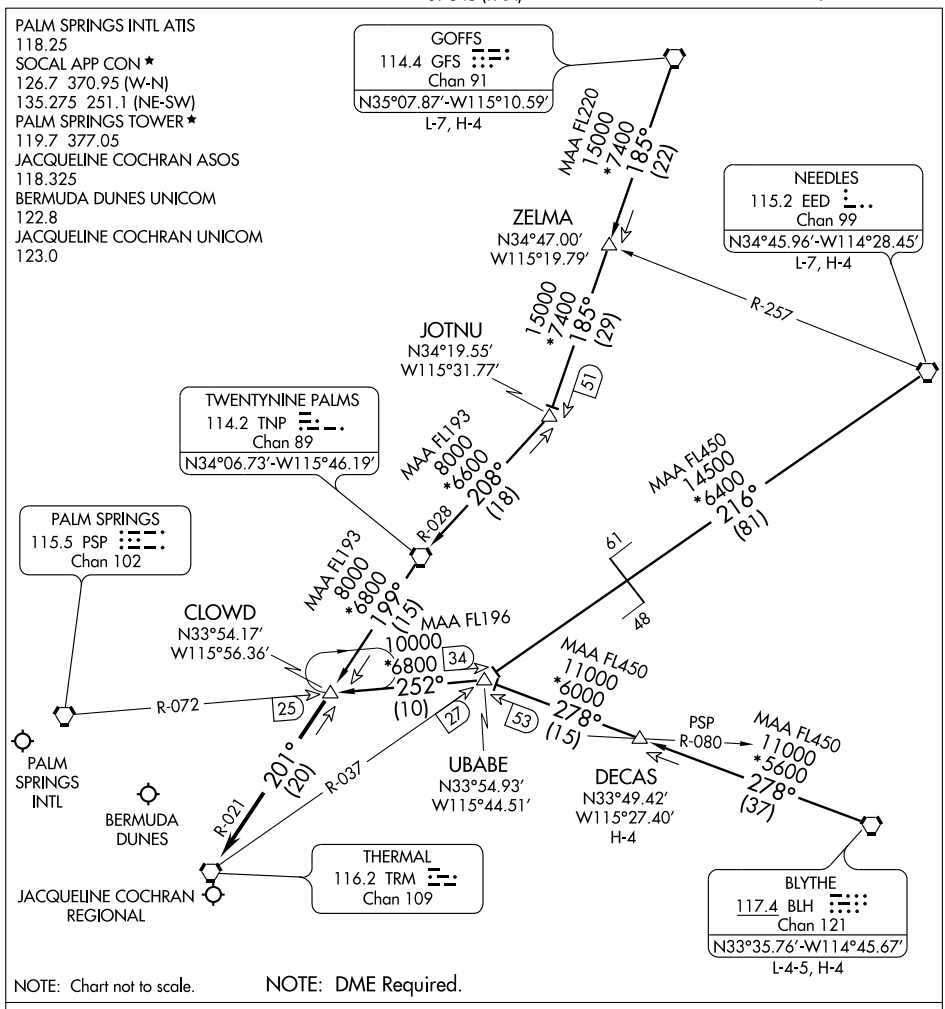
NOTE: Chart not to scale.

(CATH1.PSP) 09295
CATHEDRAL ONE DEPARTURE
SI-545 (FAA)
PALM SPRINGS INTL (PSP)
PALM SPRINGS, CALIFORNIA

CLOWD ONE ARRIVAL

ST-545 (FAA)

PALM SPRINGS, CALIFORNIA



BLYTHE TRANSITION (BLH.CLOWD1): From over BLH VORTAC via BLH R-278 and PSP R-072 to CLOWD DME. Thence....

DECAS TRANSITION (DECAS.CLOWD1): From over DECAS INT via BLH R-278 and PSP R-072 to CLOWD DME. Thence....

GOFFS TRANSITION (GFS.CLOWD1): From over GFS VORTAC via GFS R-185 and TNP R-028 to TNP VORTAC, then via TNP R-199 to CLOWD DME. Thence....

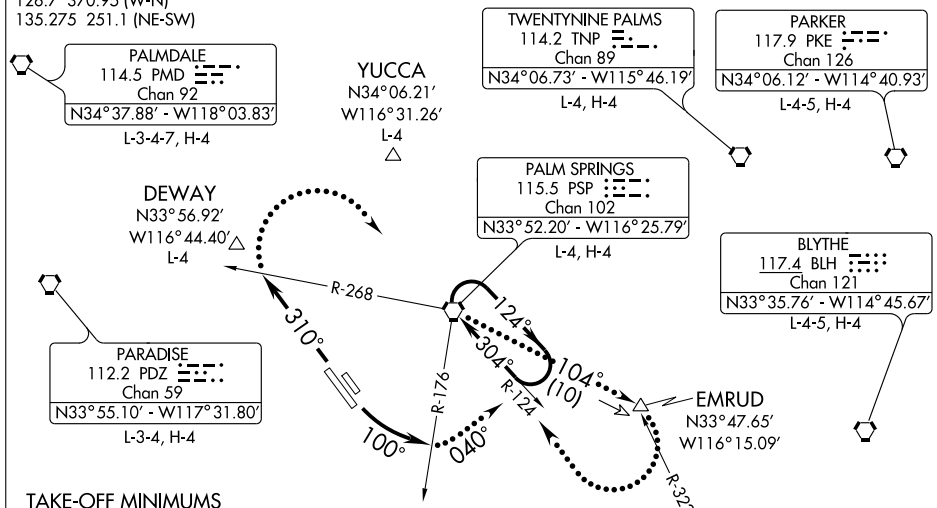
NEEDLES TRANSITION (EED.CLOWD1): From over EED VORTAC via EED R-216 and TRM R-037 to UBABE DME, then via PSP R-072 to CLOWD DME. Thence....

....From over CLOWD DME via TRM R-021 to TRM VORTAC. Expect radar vectors to final approach course.

SW-3, 14 JAN 2010 to 11 FEB 2010

PALM SPRINGS FIVE DEPARTURE

ATIS 118.25
GND CON
121.9
SOCAL DEP CON
126.7 370.95 (W-N)
135.275 251.1 (NE-SW)



TAKE-OFF MINIMUMS

Rwy 13R, 13L, 31R, 31L: Minimum climb of 450' per NM to 8000.

TAKE-OFF OBSTACLE NOTES

Rwy 13L: Trees beginning 299' from DER, 530' left of centerline, up to 66' AGL/465' MSL.
Hangar 935' from DER, 552' left of centerline, 31' AGL/440' MSL
Rwy 13R: Trees beginning 1170' from DER, 239' right of centerline, up to 100' AGL/599' MSL.
Poles beginning 815' from DER, 209' right of centerline, up to 44' AGL/433' MSL.
LT 843' from DER, 441' right of centerline, 38' AGL/427' MSL.
Antenna 1642' from DER, 26' right of centerline, 53' AGL/442' MSL..
Rwy 31L: Poles beginning 1641' from DER, 125' right of centerline, up to 31' AGL/550' MSL.
Towers beginning 2418' from DER, 402' left of centerline, up to 59' AGL/560' MSL.
Tree 3016' from DER, 66' right of centerline, 43' AGL/562' MSL.
Rwy 31R: Trees beginning 787' from DER, 326' right of centerline, up to 48' AGL/507' MSL.
Multiple bushes beginning 305' from DER, 233' right of centerline, up to 3' AGL/462' MSL.
Vent on bldg 919' from DER, 399' right of centerline, 15' AGL/474' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 13L/R: Turn left heading 100°. Thence. . . .
TAKE-OFF RUNWAYS 31L/R: Climb heading 310°. Thence. . . .

. . . . Maintain assigned altitude, expect vectors to appropriate route/fix, expect filed altitude 10 minutes after departure.

LOST COMMUNICATIONS:

RUNWAYS 13L/R: If no contact with ATC passing PSP R-176, climbing left turn heading 040° to intercept the PSP R-104. Thence. . . .
RUNWAYS 31L/R: If no contact with ATC passing PSP R-268; climbing right turn direct PSP VORTAC. Thence. . . .
. . .Climb via PSP R-104 to EMRUD, then turn right direct PSP VORTAC. Then via assigned route.

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	6857
130°	TDZE	451
	Apt Elev	477

RNAV (RNP) Y RWY 13R

PALM SPRINGS INTL (PSP)

RF and GPS required. Procedure NA when control tower closed. For uncompensated Baro-VNAV systems, procedure NA below 2°C (35°F) or above 48°C (119°F).

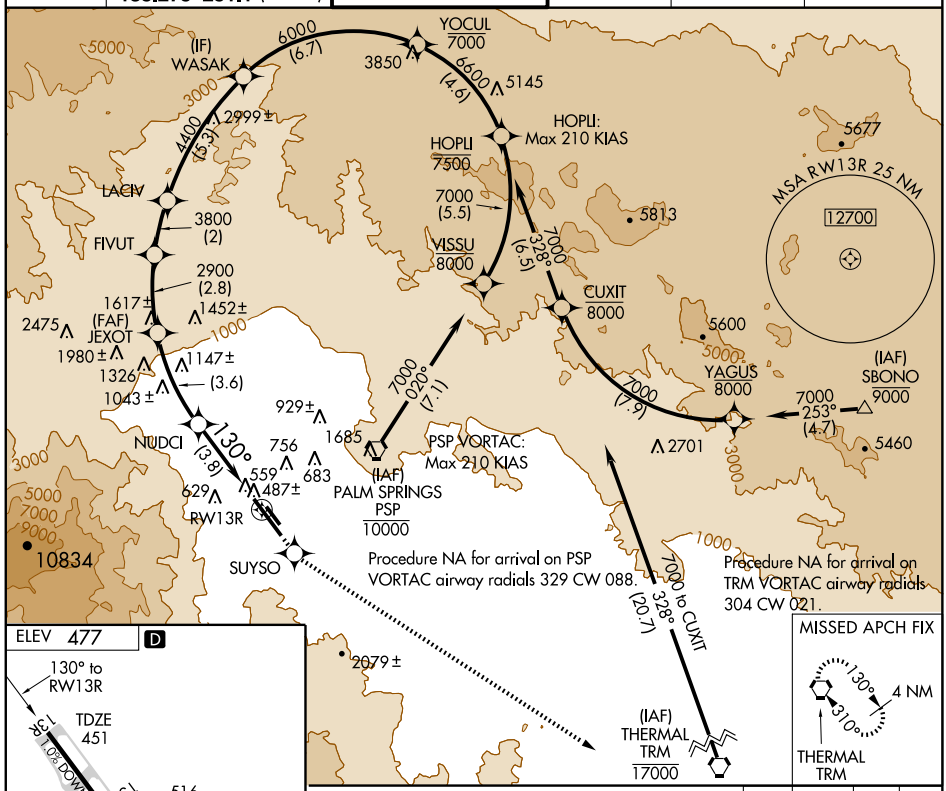
NA

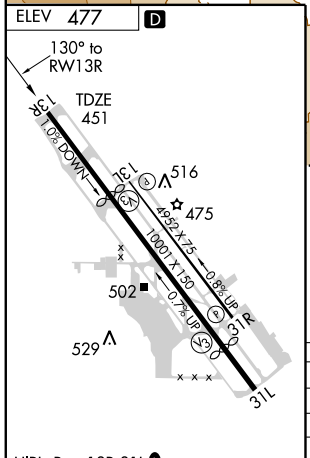
*Missed approach requires minimum climb of 285 feet per NM to 2400.

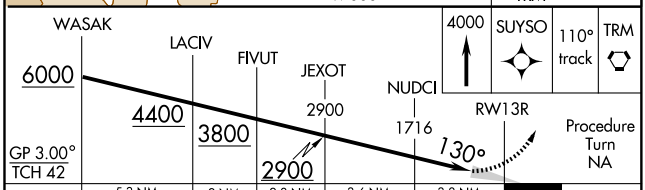
**Missed approach requires minimum climb of 310 feet per NM to 2900.

MISSED APPROACH: Climb to 4000 direct SUYSO and 110° track to TRM VORTAC and hold.

ATIS	SOCAL APP CON ★	PALM SPRINGS TOWER ★	GND CON	CLNC DEL	UNICOM
118.25	126.7 370.95 (W-N) 135.275 251.1 (NE-SW)	119.7 (CTAF) L 377.05	121.9	128.35	122.95







CATEGORY	A	B	C	D
RNP 0.17 DA*		728-1	277 (300-1)	
RNP 0.3 DA**		859-1½	408 (400-1½)	
RNP 0.3 DA		1320-3	869 (900-3)	

HIRL Rwy 13R-31L L
MIRL Rwy 13L-31R
REIL Rwys 13L, 13R, 31L, and 31R

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	8500
309°	TDZE	430
	Apt Elev	477

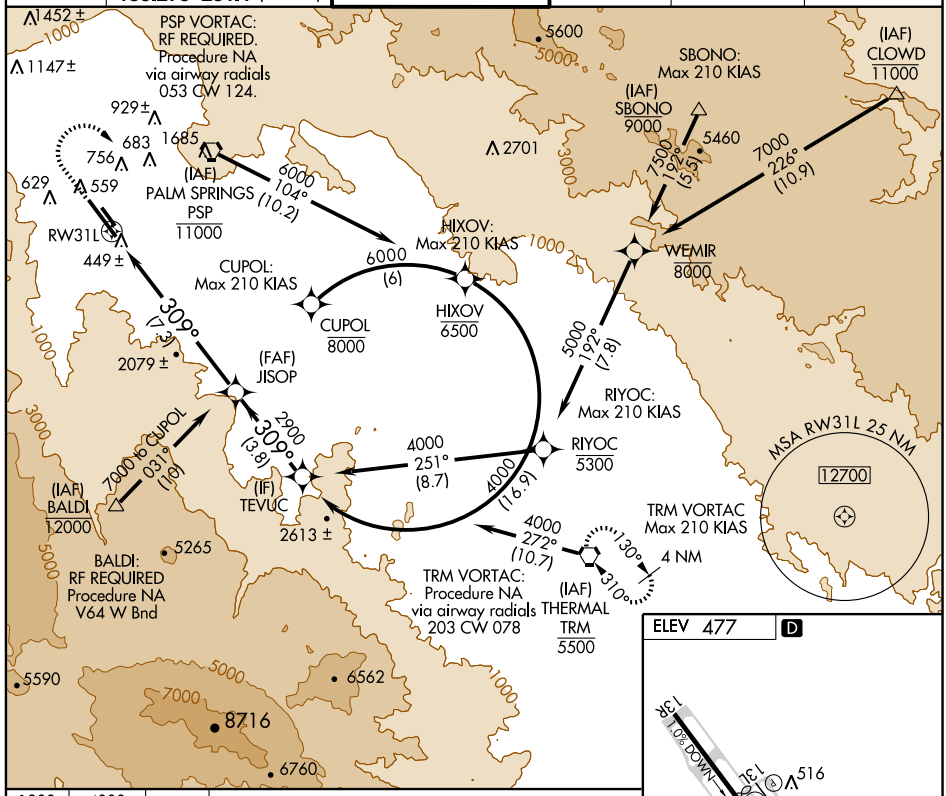
RNAV (RNP) Y RWY 31L

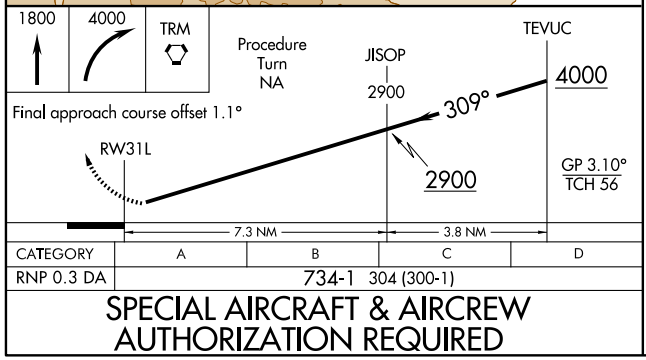
PALM SPRINGS INTL (PSP)

GPS required. Procedure NA when control tower closed.
NA For uncompensated Baro-VNAV systems, procedure NA below 2°C (35°F) or above 38°C (102°F).
Missed approach requires minimum climb of 340' per NM to 3000.
Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 1800, then climbing right turn to 4000 direct TRM VORTAC and hold.

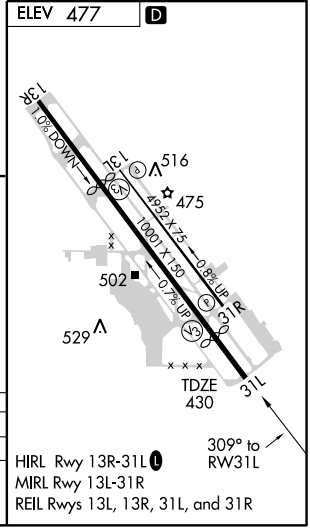
ATIS	SOCAL APP CON ★	PALM SPRINGS TOWER ★	GND CON	CLNC DEL	UNICOM
118.25	126.7 370.95 (W-N) 135.275 251.1 (NE-SW)	119.7 (CTAF) L 377.05	121.9	128.35	122.95





CATEGORY	A	B	C	D
RNP 0.3 DA	734-1 304 (300-1)			

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED



SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	6857
130°	TDZE	451
	Apt Elev	477

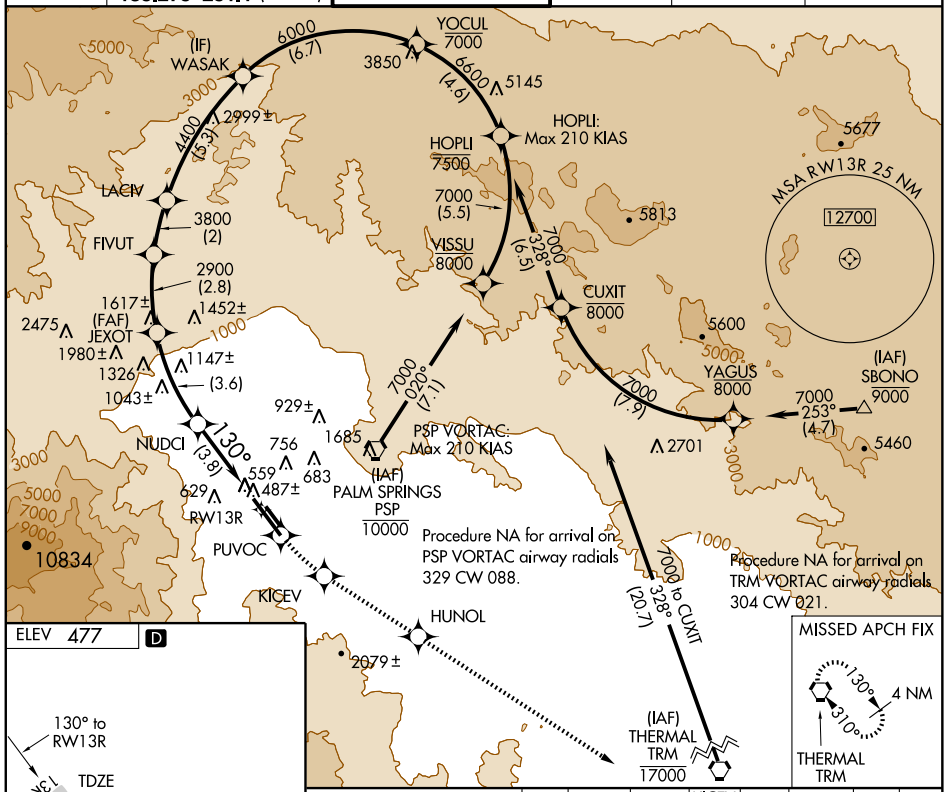
RNAV (RNP) Z RWY 13R

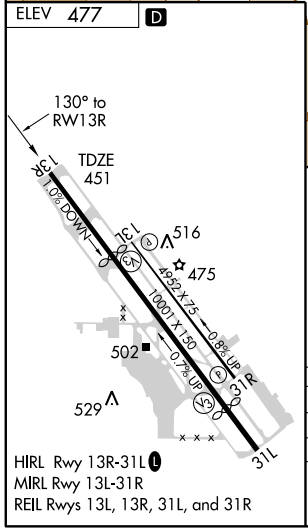
PALM SPRINGS INTL (PSP)

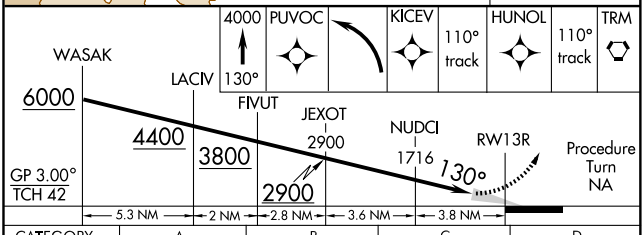
RF and GPS required. Procedure NA when control tower closed. For uncompensated Baro-VNAV systems, procedure NA below 2°C (35°F) or above 48°C (119°F). Missed approach requires RNP less than 1.0.

MISSED APPROACH: Climb to 4000 via 130° track to PUVOC, left radius turn to KICEV, 110° track to HUNOL, 110° track to TRM VORTAC and hold.

ATIS	SOCAL APP CON ★	PALM SPRINGS TOWER ★	GND CON	CLNC DEL	UNICOM
118.25	126.7 370.95 (W-N) 135.275 251.1 (NE-SW)	119.7 (CTAF) L 377.05	121.9	128.35	122.95







CATEGORY	A	B	C	D
RNP 0.17 DA		728-1	277 (300-1)	
RNP 0.3 DA		859-1½	408 (400-1½)	

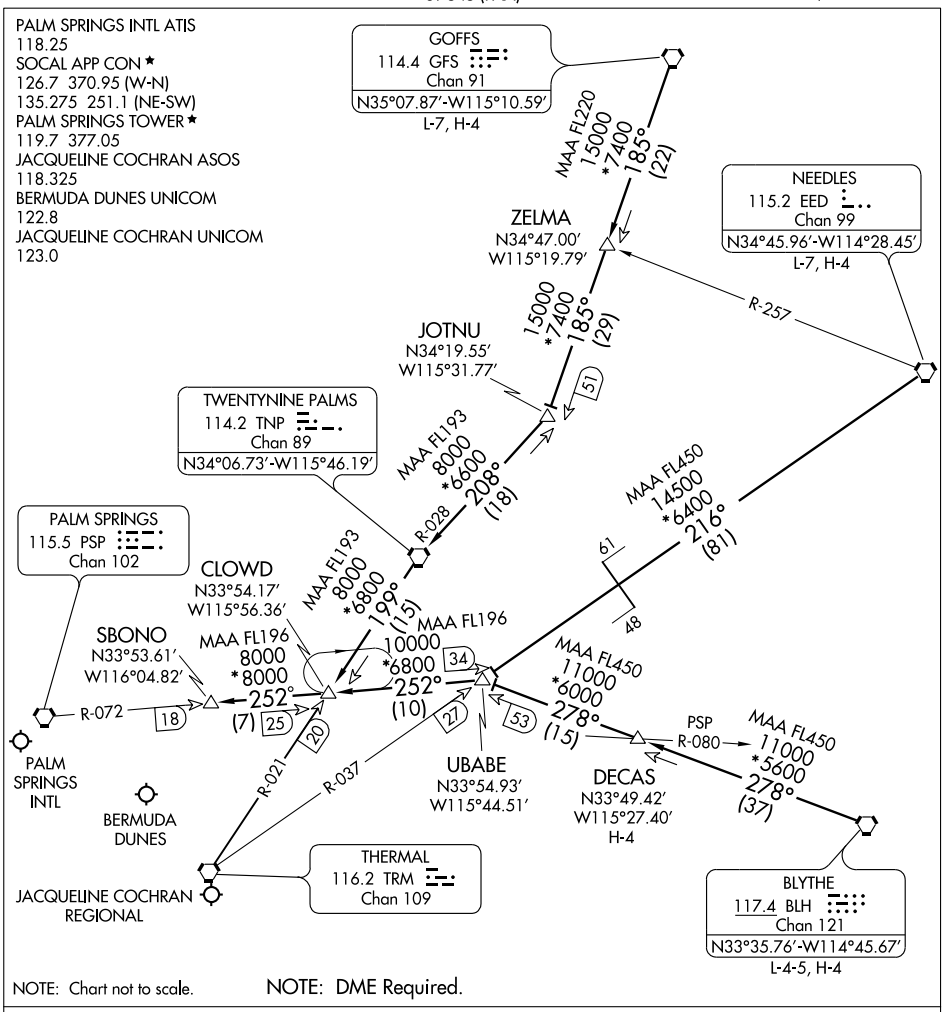
SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

SW-3, 14 JAN 2010 to 11 FEB 2010

SBONO ONE ARRIVAL

ST-545 (FAA)

PALM SPRINGS, CALIFORNIA



NOTE: Chart not to scale.

NOTE: DME Required.

BLYTHE TRANSITION (BLH.SBONO1): From over BLH VORTAC via BLH R-278 and PSP R-072 to SBONO DME. Thence....

DECAS TRANSITION (DECAS.SBONO1): From over DECAS INT via BLH R-278 and PSP R-072 to SBONO DME. Thence....

GOFFS TRANSITION (GFS.SBONO1): From over GFS VORTAC via GFS R-185 and TNP R-028 to TNP VORTAC, then via TNP R-199 and PSP R-072 to SBONO DME. Thence....

NEEDLES TRANSITION (EED.SBONO1): From over EED VORTAC via EED R-216 and TRM R-037 to UBABE DME, then via PSP R-072 to SBONO DME. Thence....

....From over SBONO DME expect radar vectors to final approach course.

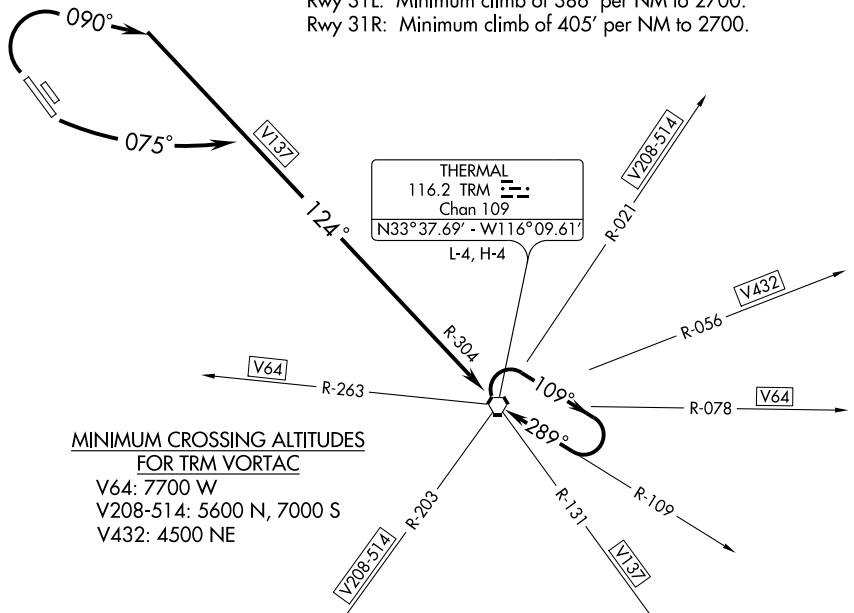
SW-3, 14 JAN 2010 to 11 FEB 2010

THERMAL SIX DEPARTURE

ATIS 118.25
GND CON
121.9
SOCAL DEP CON
126.7 370.95 (W-N)
135.275 251.1 (NE-SW)

TAKE-OFF MINIMUMS

Rwy 13L: Minimum climb of 440′ per NM to 2300.
Rwy 13R: Minimum climb of 422′ per NM to 2300.
Rwy 31L: Minimum climb of 386′ per NM to 2700.
Rwy 31R: Minimum climb of 405′ per NM to 2700.



MINIMUM CROSSING ALTITUDES FOR TRM VORTAC

V64: 7700 W
V208-514: 5600 N, 7000 S
V432: 4500 NE

TAKE-OFF OBSTACLE NOTES

Rwy 13L: Trees beginning 299′ from DER, 530′ left of centerline, up to 66′ AGL/465′ MSL.
Hangar 935′ from DER, 552′ left of centerline, 31′ AGL/440′ MSL
Rwy 13R: Trees beginning 1170′ from DER, 239′ right of centerline, up to 100′ AGL/599′ MSL.
Poles beginning 815′ from DER, 209′ right of centerline, up to 44′ AGL/433′ MSL.
LT 843′ from DER, 441′ right of centerline, 38′ AGL/427′ MSL.
Antenna 1642′ from DER, 26′ right of centerline, 53′ AGL/442′ MSL..
Rwy 31L: Poles beginning 1641′ from DER, 125′ right of centerline, up to 31′ AGL/550′ MSL.
Towers beginning 2418′ from DER, 402′ left of centerline, up to 59′ AGL/560′ MSL.
Tree 3016′ from DER, 66′ right of centerline, 43′ AGL/562′ MSL.
Rwy 31R: Trees beginning 787′ from DER, 326′ right of centerline, up to 48′ AGL/507′ MSL.
Multiple bushes beginning 305′ from DER, 233′ right of centerline, up to 3′ AGL/462′ MSL.
Vent on bldg 919′ from DER, 399′ right of centerline, 15′ AGL/474′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 13L/R: Climbing left turn heading 075° to intercept TRM R-304 to TRM VORTAC. Thence . . . .

TAKE-OFF RUNWAYS 31L/R: Climb heading 090° to intercept TRM R-304 to TRM VORTAC. Thence . . . .

. . . .If not at MEA/MCA at TRM VORTAC, climb in TRM holding pattern until reaching the MEA/MCA for assigned route of flight.

PALM SPRINGS, CALIFORNIA

AL-545 (FAA)

VOR or GPS-B

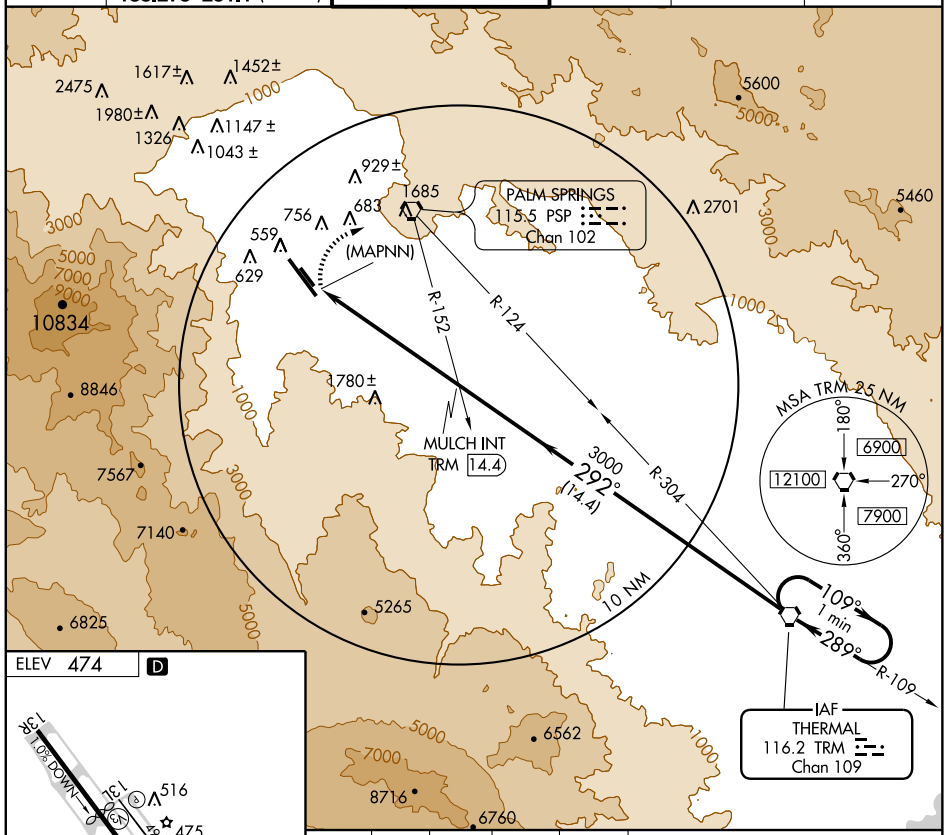
PALM SPRINGS INTL (PSP)

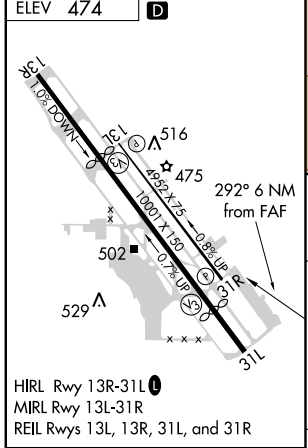
VORTAC TRM	APP CRS	Rwy Idg	N/A
116.2	292°	TDZE	N/A
Chan 109		Apt Elev	474

T A Circling not authorized southwest of Rwy 13R-31L.

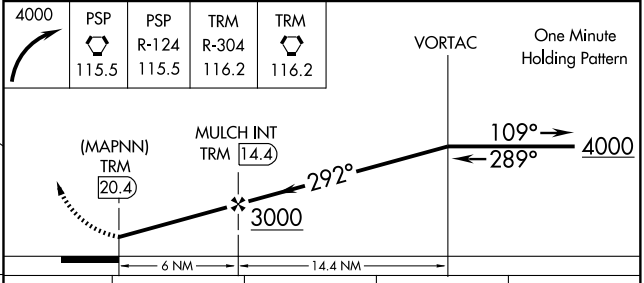
MISSED APPROACH: Climbing right turn to 4000 direct PSP VORTAC then via PSP R-124 and TRM R-304 to TRM VORTAC and hold.

ATIS	SOCAL APP CON ★	PALM SPRINGS TOWER ★	GND CON	CLNC DEL	UNICOM
118.25	126.7 370.95 (W-N) 135.275 251.1 (NE-SW)	119.7 (CTAF) L 377.05	121.9	128.35	122.95





4000	PSP	PSP	TRM	TRM
	115.5	R-124 115.5	R-304 116.2	116.2



FAF to MAP	6 NM				
Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00

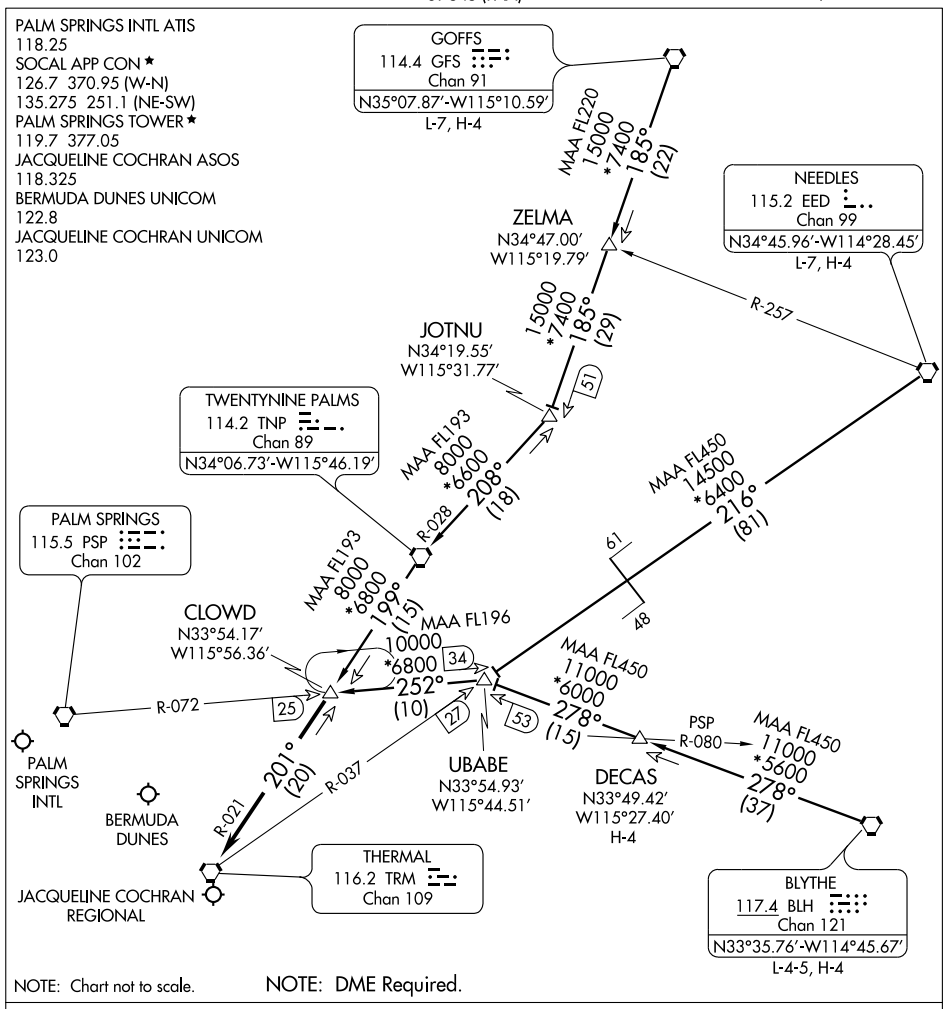
CATEGORY	A	B	C	D
CIRCLING	2300-1¼ 1826 (1900-1¼)	2300-1½ 1826 (1900-1½)	2300-3	1826 (1900-3)

SW-3, 14 JAN 2010 to 11 FEB 2010

CLOWD ONE ARRIVAL

ST-545 (FAA)

PALM SPRINGS, CALIFORNIA



BLYTHE TRANSITION (BLH.CLOWD1): From over BLH VORTAC via BLH R-278 and PSP R-072 to CLOWD DME. Thence....

DECAS TRANSITION (DECAS.CLOWD1): From over DECAS INT via BLH R-278 and PSP R-072 to CLOWD DME. Thence....

GOFFS TRANSITION (GFS.CLOWD1): From over GFS VORTAC via GFS R-185 and TNP R-028 to TNP VORTAC, then via TNP R-199 to CLOWD DME. Thence....

NEEDLES TRANSITION (EED.CLOWD1): From over EED VORTAC via EED R-216 and TRM R-037 to UBABE DME, then via PSP R-072 to CLOWD DME. Thence....

....From over CLOWD DME via TRM R-021 to TRM VORTAC. Expect radar vectors to final approach course.

SW-3, 14 JAN 2010 to 11 FEB 2010

PALM SPRINGS, CALIFORNIA AL-529 (FAA)

APP CRS	Rwy Idg	4995
302°	TDZE	-121
	Apt Elev	-114

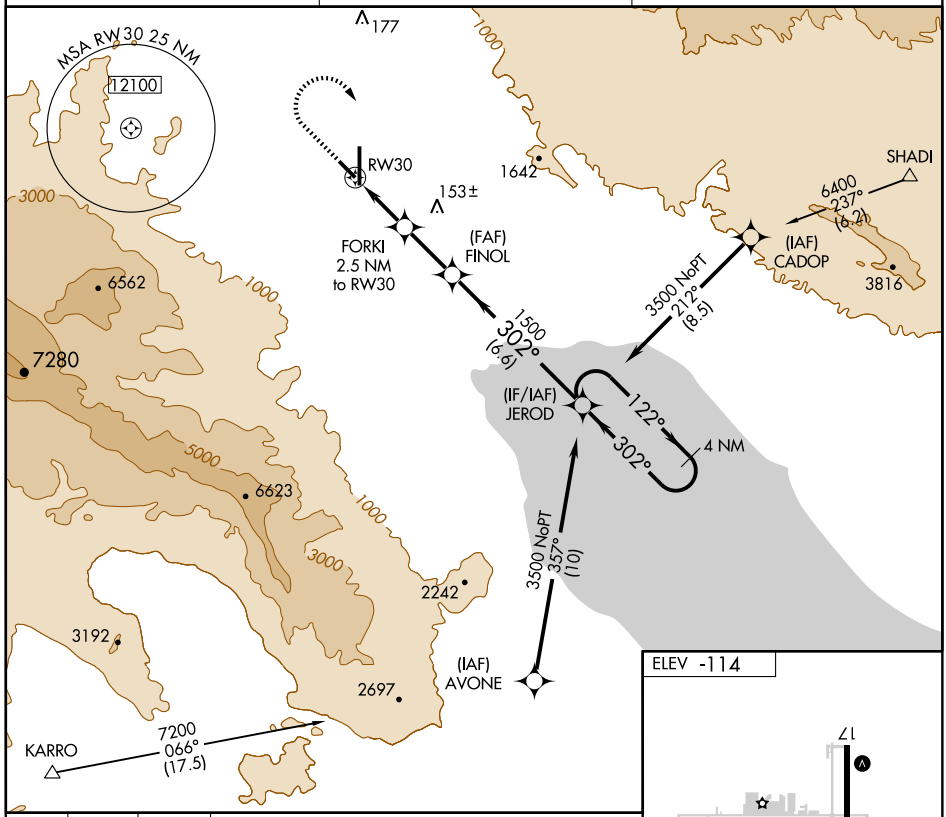
RNAV (GPS) RWY 30

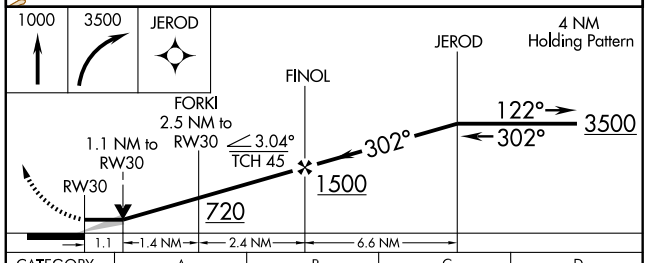
PALM SPRINGS/ JACQUELINE COCHRAN RGNL (TRM)

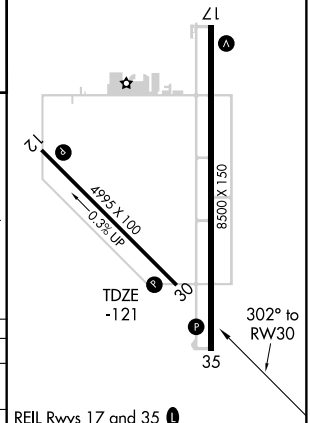
T
NA GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 1000 then climbing right turn to 3500 direct JEROD WP and hold.

ASOS	SOCAL APP CON ★	UNICOM
118.325	135.275 251.1	123.0 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	260-1 374 (400-1)			260-1¼ 374 (400-1¼)
CIRCLING	320-1 434 (500-1)	340-1 454 (500-1)	340-1½ 454 (500-1½)	500-2 614 (700-2)

REIL Rwys 17 and 35 L
MIRL Rwys 12-30 and 17-35 L

SW-3, 14 JAN 2010 to 11 FEB 2010

PALM SPRINGS, CALIFORNIA AL-529 (FAA)

APP CRS	Rwy Idg	8500
336°	TDZE	-124
	Apt Elev	-114

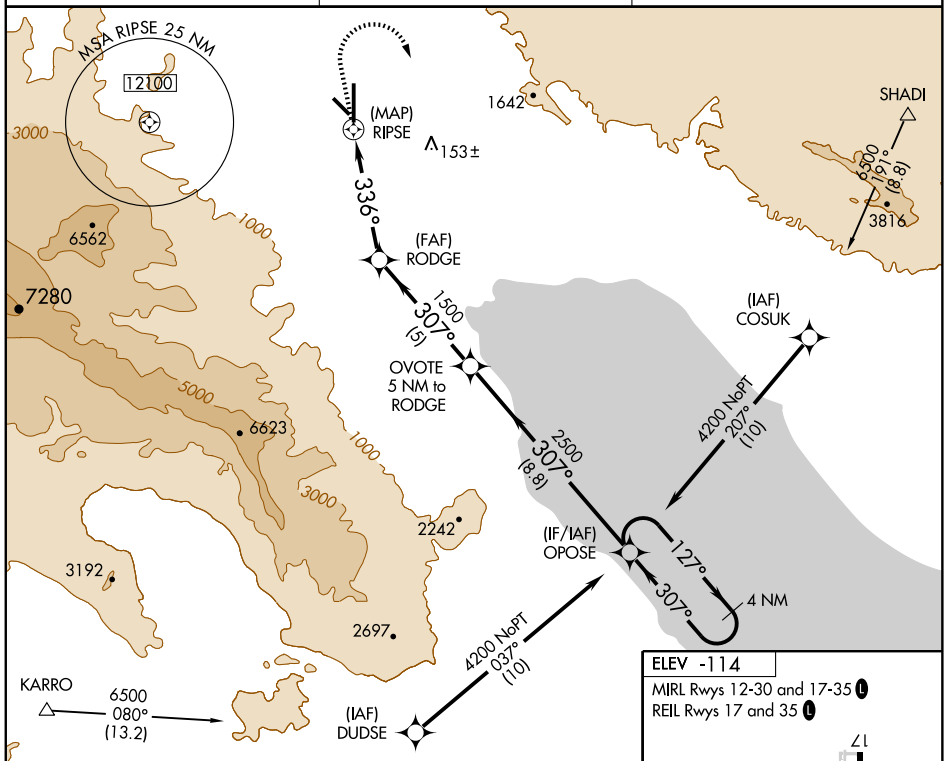
RNAV (GPS) RWY 35

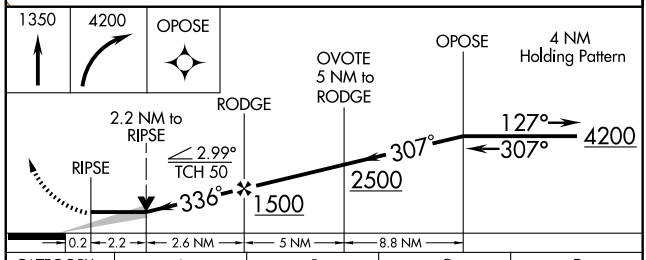
PALM SPRINGS/ JACQUELINE COCHRAN RGNL (TRM)

T
A NA — GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 1350 then climbing right turn to 4200 direct OPOSE WP and hold.

ASOS	SOCAL APP CON ★	UNICOM
118.325	135.275 251.1	123.0 (CTAF) L



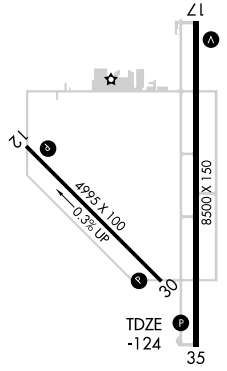


CATEGORY	A	B	C	D
LNAV MDA	700-1 824 (900-1)	700-1¼ 824 (900-1¼)	700-2½ 824 (900-2½)	700-2¾ 824 (900-2¾)
CIRCLING	700-1 814 (900-1)	700-1¼ 814 (900-1¼)	700-2½ 814 (900-2½)	700-2¾ 814 (900-2¾)

ELEV -114

MIRL Rwys 12-30 and 17-35 L

REIL Rwys 17 and 35 L

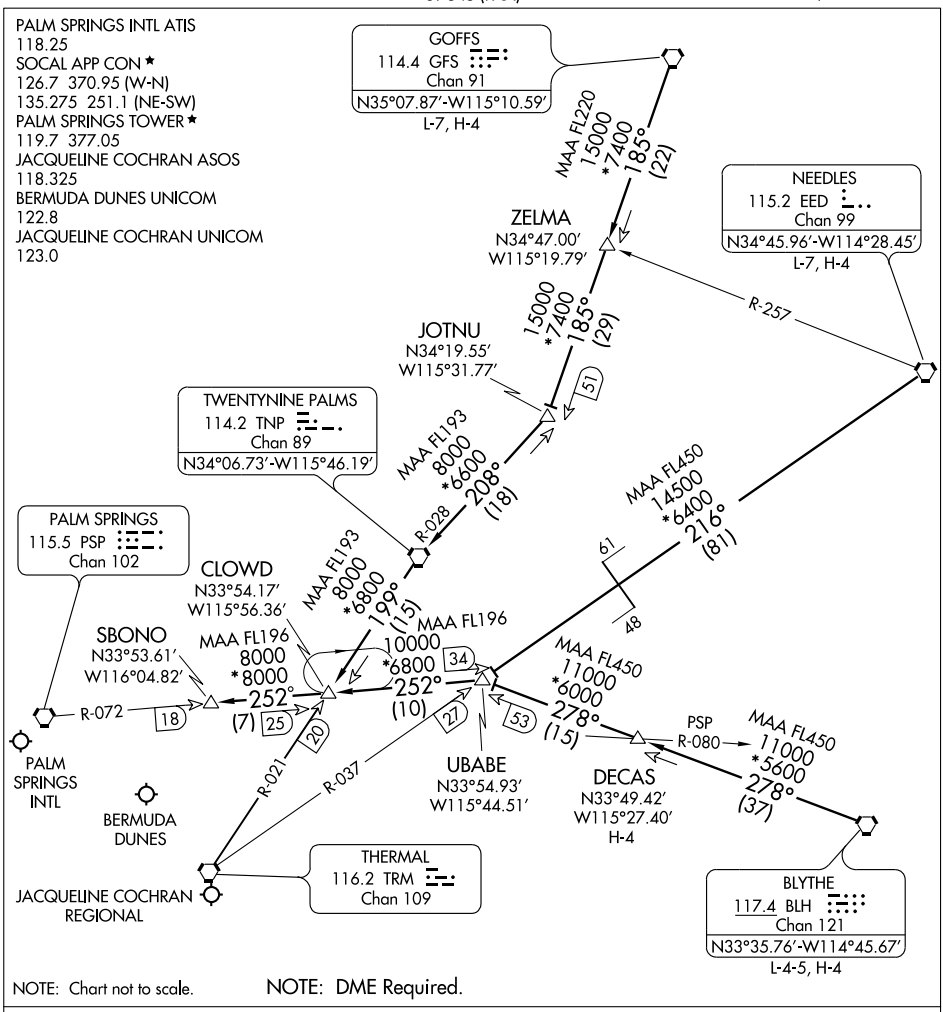


SW-3, 14 JAN 2010 to 11 FEB 2010

SBONO ONE ARRIVAL

ST-545 (FAA)

PALM SPRINGS, CALIFORNIA



NOTE: Chart not to scale.

NOTE: DME Required.

BLYTHE TRANSITION (BLH.SBONO1): From over BLH VORTAC via BLH R-278 and PSP R-072 to SBONO DME. Thence....

DECAS TRANSITION (DECAS.SBONO1): From over DECAS INT via BLH R-278 and PSP R-072 to SBONO DME. Thence....

GOFFS TRANSITION (GFS.SBONO1): From over GFS VORTAC via GFS R-185 and TNP R-028 to TNP VORTAC, then via TNP R-199 and PSP R-072 to SBONO DME. Thence....

NEEDLES TRANSITION (EED.SBONO1): From over EED VORTAC via EED R-216 and TRM R-037 to UBABE DME, then via PSP R-072 to SBONO DME. Thence....

....From over SBONO DME expect radar vectors to final approach course.

SW-3, 14 JAN 2010 to 11 FEB 2010

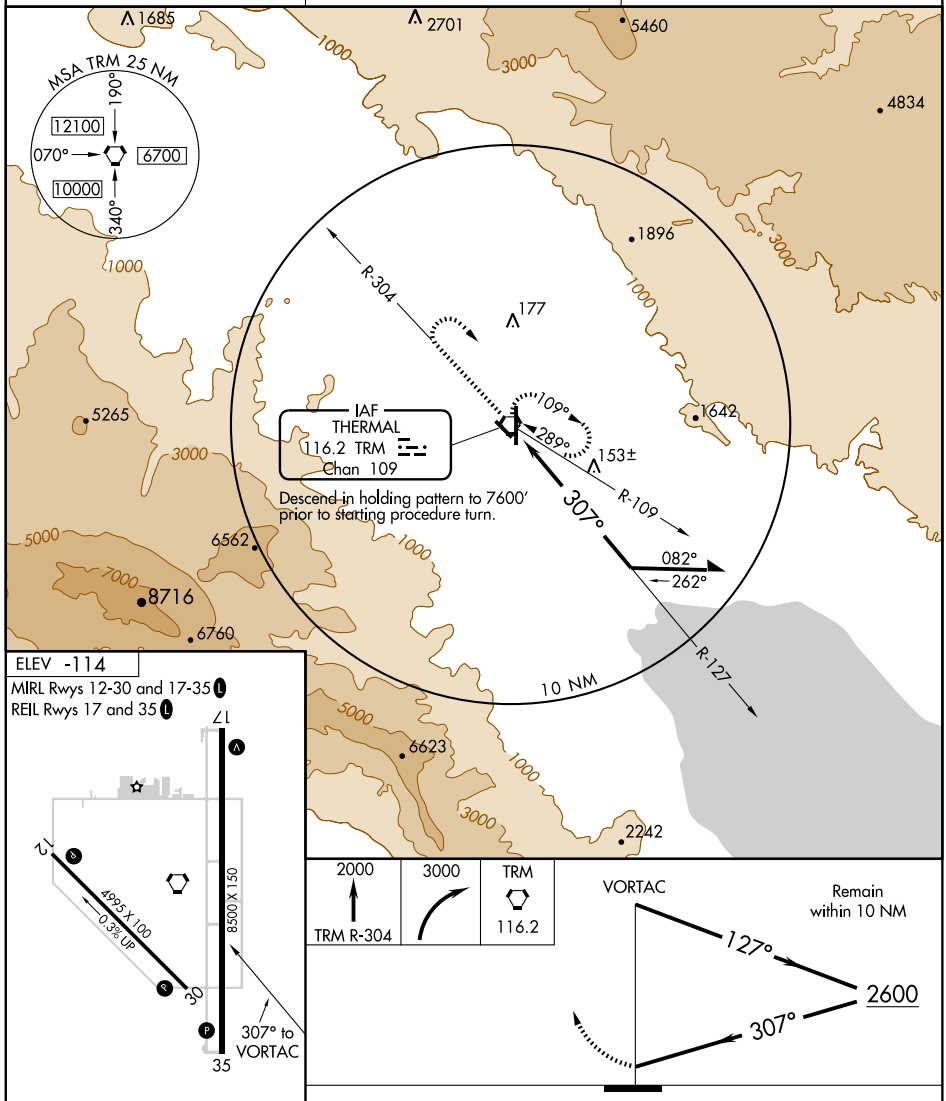
VORTAC TRM	APP CRS	Rwy Idg	N/A
116.2	307°	TDZE	N/A
Chan 109		Apt Elev	-114

VOR-A

PALM SPRINGS/ JACQUELINE COCHRAN RGNL (TRM)

MISSED APPROACH: Climb to 2000 via TRM R-304 then climbing right turn to 3000 direct TRM VORTAC and hold.

ASOS	SOCAL APP CON ★	UNICOM
118.325	135.275 251.1	123.0 (CTAF) L



Knots	60	90	120	150	180
Min:Sec					

CATEGORY	A	B	C	D
CIRCLING	1100-1¼ 1214 (1300-1¼)	1100-1½ 1214 (1300-1½)	1100-3 1214 (1300-3)	

SW-3, 14 JAN 2010 to 11 FEB 2010

PALM SPRINGS, CALIFORNIA

AL-529 (FAA)

VORTAC TRM	APP CRS	Rwy Idg	4995
116.2	316°	TDZE	-121
Chan 109		Apt Elev	-114

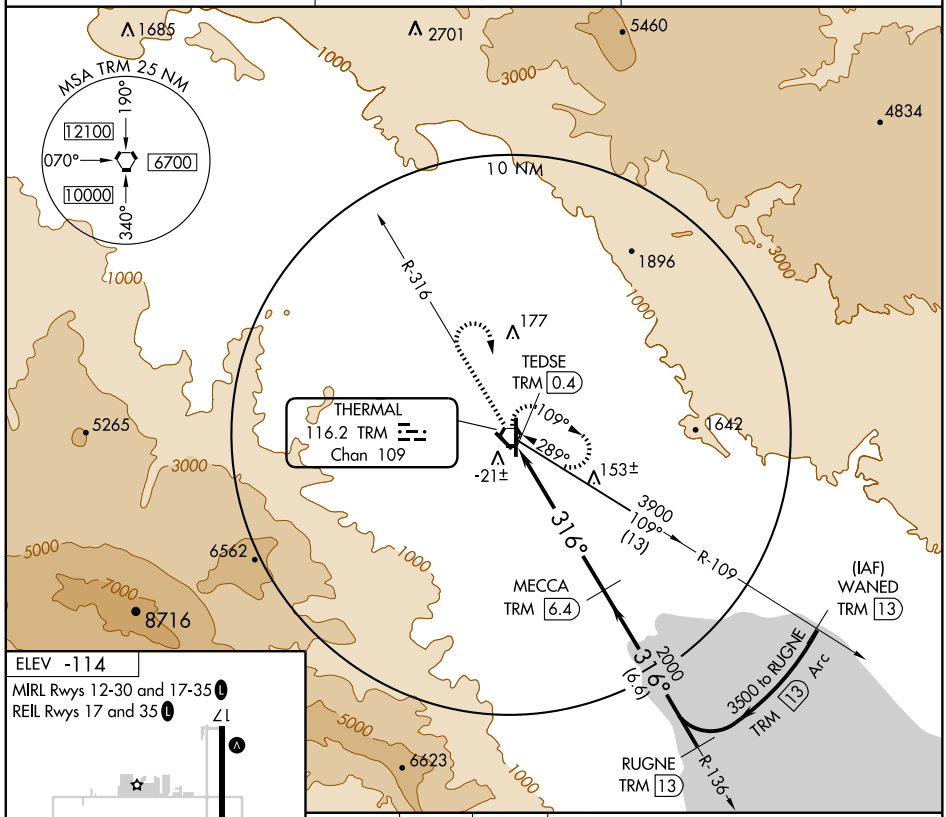
VOR/DME RWY 30

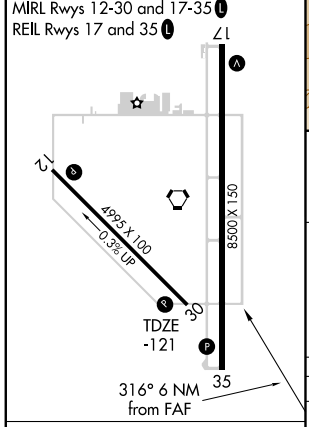
PALM SPRINGS/ JACQUELINE COCHRAN RGNL (TRM)

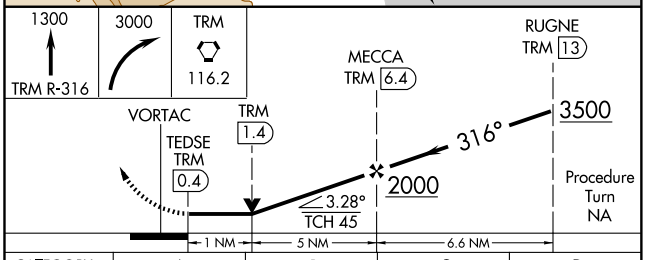
NA

MISSED APPROACH: Climb to 1300 via TRM R-316 then climbing right turn to 3000 direct TRM VORTAC and hold.

ASOS	SOCAL APP CON★	UNICOM
118.325	135.275 251.1	123.0 (CTAF) L







CATEGORY	A	B	C	D
S-30	240-1 361 (400-1)			240-1¼ 361 (400-1¼)
CIRCLING	340-1 454 (500-1)		340-1½ 454 (500-1½)	500-2 614 (700-2)

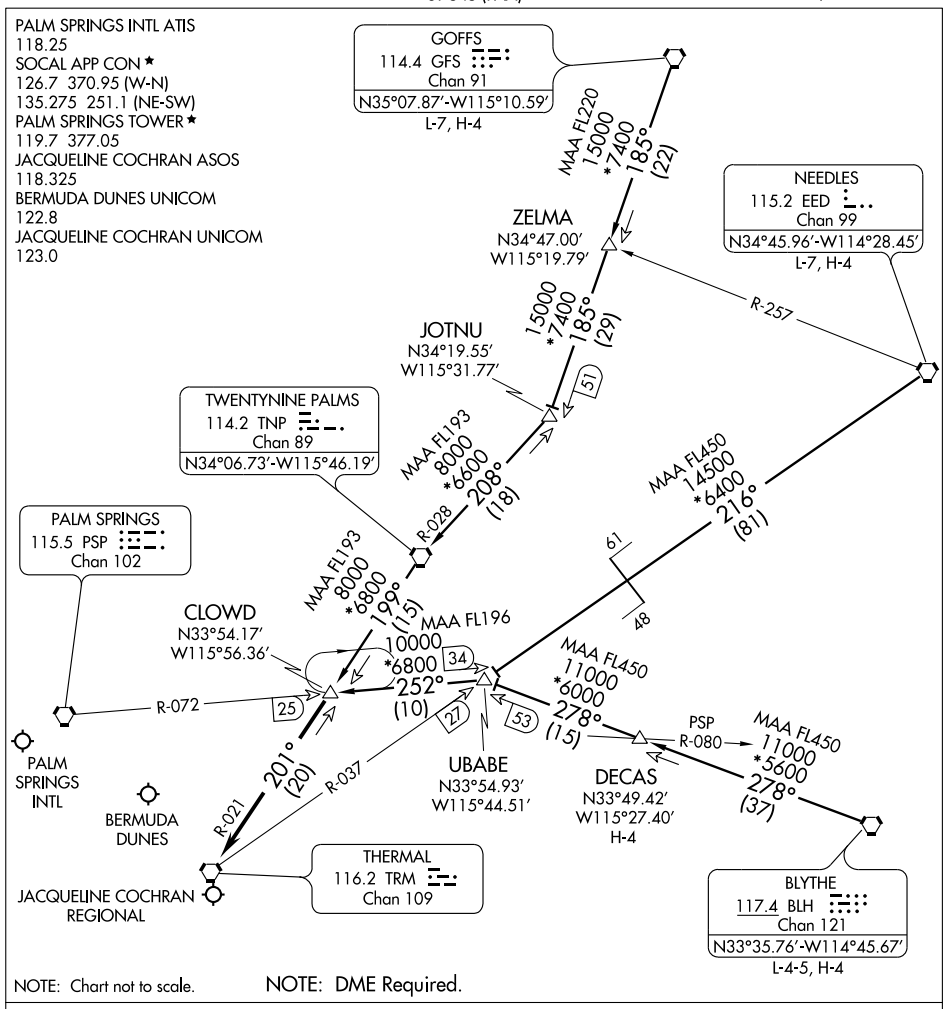
Knots	60	90	120	150	180
Min:Sec					

SW-3, 14 JAN 2010 to 11 FEB 2010

CLOWD ONE ARRIVAL

ST-545 (FAA)

PALM SPRINGS, CALIFORNIA



BLYTHE TRANSITION (BLH.CLOWD1): From over BLH VORTAC via BLH R-278 and PSP R-072 to CLOWD DME. Thence....

DECAS TRANSITION (DECAS.CLOWD1): From over DECAS INT via BLH R-278 and PSP R-072 to CLOWD DME. Thence....

GOFFS TRANSITION (GFS.CLOWD1): From over GFS VORTAC via GFS R-185 and TNP R-028 to TNP VORTAC, then via TNP R-199 to CLOWD DME. Thence....

NEEDLES TRANSITION (EED.CLOWD1): From over EED VORTAC via EED R-216 and TRM R-037 to UBABE DME, then via PSP R-072 to CLOWD DME. Thence....

....From over CLOWD DME via TRM R-021 to TRM VORTAC. Expect radar vectors to final approach course.

SW-3, 14 JAN 2010 to 11 FEB 2010

PALM SPRINGS, CALIFORNIA

AL-5848 (FAA)

APP CRS	Rwy Idg	5002
102°	TDZE	73
	Apt Elev	73

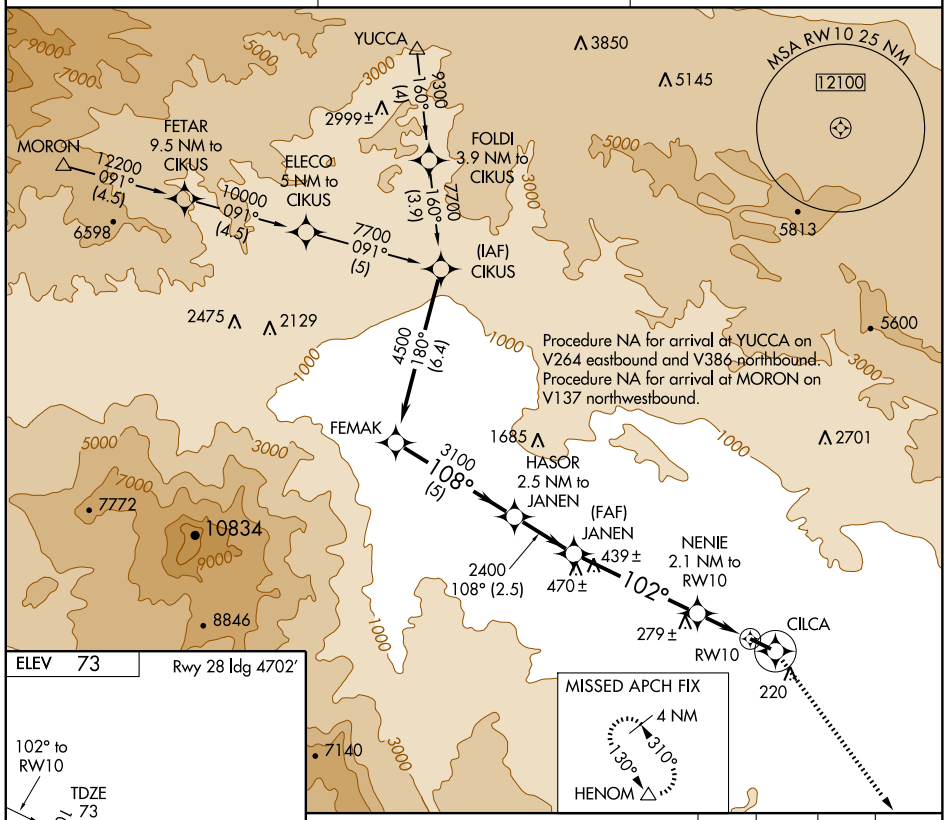
RNAV (GPS) RWY 10

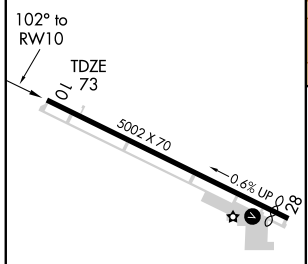
PALM SPRINGS/ BERMUDA DUNES (UDD)

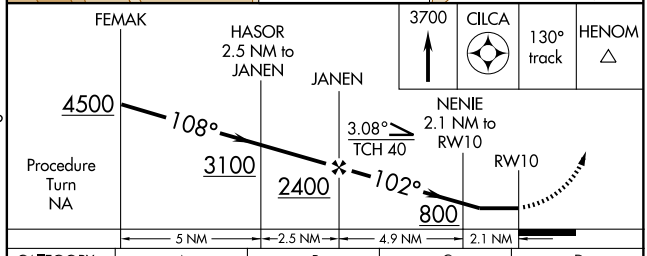
NA — GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA. Use Jacqueline Cochran Rgnl altimeter setting.

MISSED APPROACH: Climb to 3700 direct CILCA and via 130° track to HENOM and hold.

JACQUELINE COCHRAN REGIONAL ASOS	SOCAL APP CON *	UNICOM
118.325	135.275 251.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	480-1 407 (500-1)		480-1¼ 407 (500-1¼)	NA
CIRCLING	700-1 627 (700-1)		700-1¾ 627 (700-1¾)	NA

REIL Rwy 28
LIRL Rwy 10-28 L

SW-3, 14 JAN 2010 to 11 FEB 2010

PALM SPRINGS, CALIFORNIA AL-5848 (FAA)

RNAV (GPS) RWY 28

PALM SPRINGS/BERMUDA DUNES (UDD)

APP CRS	Rwy Idg	4702
296°	TDZE	66
	Apt Elev	73

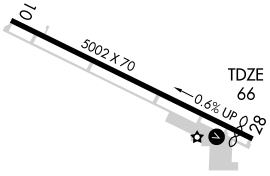
T NA — GPS or RNP-0.3 required. DME/DME RNP-0.3 NA. Use Jacqueline Cochran Rgnl altimeter setting.

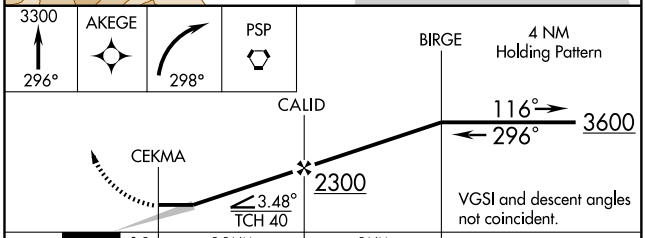
MISSED APPROACH: Climb to 3300 via course 296° to AKEGE WP then right turn via course 298° to PSP VORTAC and hold.

JACQUELINE COCHRAN REGIONAL ASOS	SOCAL APP CON ★	UNICOM
118.325	135.275 251.1	122.8 (CTAF) L

PALM SPRINGS PSP
1685
124°
304°
4 NM
3800 to BIRGE
117° (22)
2701
5460
4834
CONES
1000
3000
MSA CEKMA 25 NM
12100
AKEGE
(MAP)
CEKMA
220
6100
173°
(6.7)
1896
(FAF)
CALID
(IAF)
AKIPE
2300
296°
(5)
3600 NoPT
206°
(5)
5500
274°
(14.3)
SHADI
(IF/IAF)
BIRGE
1642
5265
116°
296°
4 NM
3600 NoPT
298°
(10.3)
(IAF)
MOMAR
6562
8716
6623

ELEV 73
Rwy 28 Idg 4702′





CATEGORY	A	B	C	D
LNAV MDA	1020-1¼ 954 (1000-1¼)	1020-1½ 954 (1000-1½)	1020-3 954 (1000-3)	NA
CIRCLING	1020-1¼ 947 (1000-1¼)	1020-1½ 947 (1000-1½)	1020-3 947 (1000-3)	NA

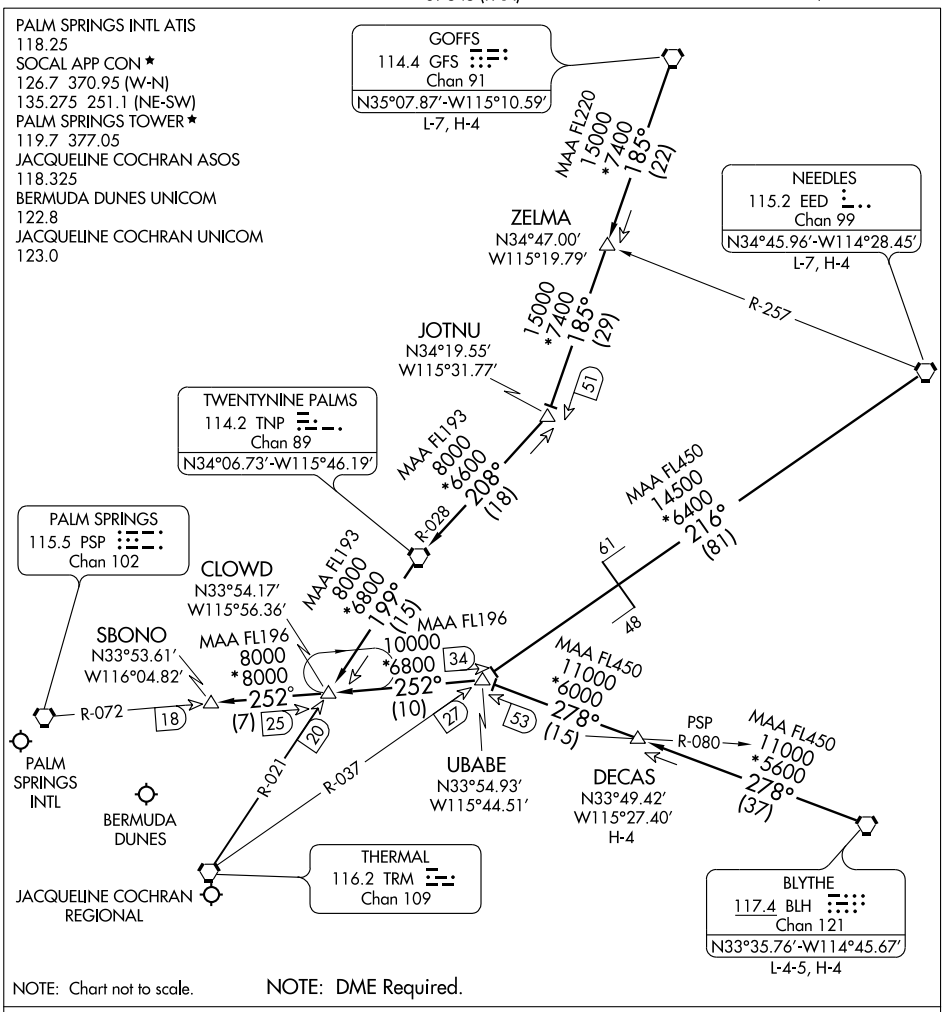
REIL Rwy 28
LIRL Rwy 10-28 L

SW-3, 14 JAN 2010 to 11 FEB 2010

SBONO ONE ARRIVAL

ST-545 (FAA)

PALM SPRINGS, CALIFORNIA



NOTE: Chart not to scale.

NOTE: DME Required.

BLYTHE TRANSITION (BLH.SBONO1): From over BLH VORTAC via BLH R-278 and PSP R-072 to SBONO DME. Thence....

DECAS TRANSITION (DECAS.SBONO1): From over DECAS INT via BLH R-278 and PSP R-072 to SBONO DME. Thence....

GOFFS TRANSITION (GFS.SBONO1): From over GFS VORTAC via GFS R-185 and TNP R-028 to TNP VORTAC, then via TNP R-199 and PSP R-072 to SBONO DME. Thence....

NEEDLES TRANSITION (EED.SBONO1): From over EED VORTAC via EED R-216 and TRM R-037 to UBABE DME, then via PSP R-072 to SBONO DME. Thence....

....From over SBONO DME expect radar vectors to final approach course.

SW-3, 14 JAN 2010 to 11 FEB 2010

PALM SPRINGS, CALIFORNIA AL-5848 (FAA)

VORTAC TRM	APP CRS	Rwy Idg	N/A
116.2	310°	TDZE	N/A
Chan 109		Apt Elev	73

VOR-C

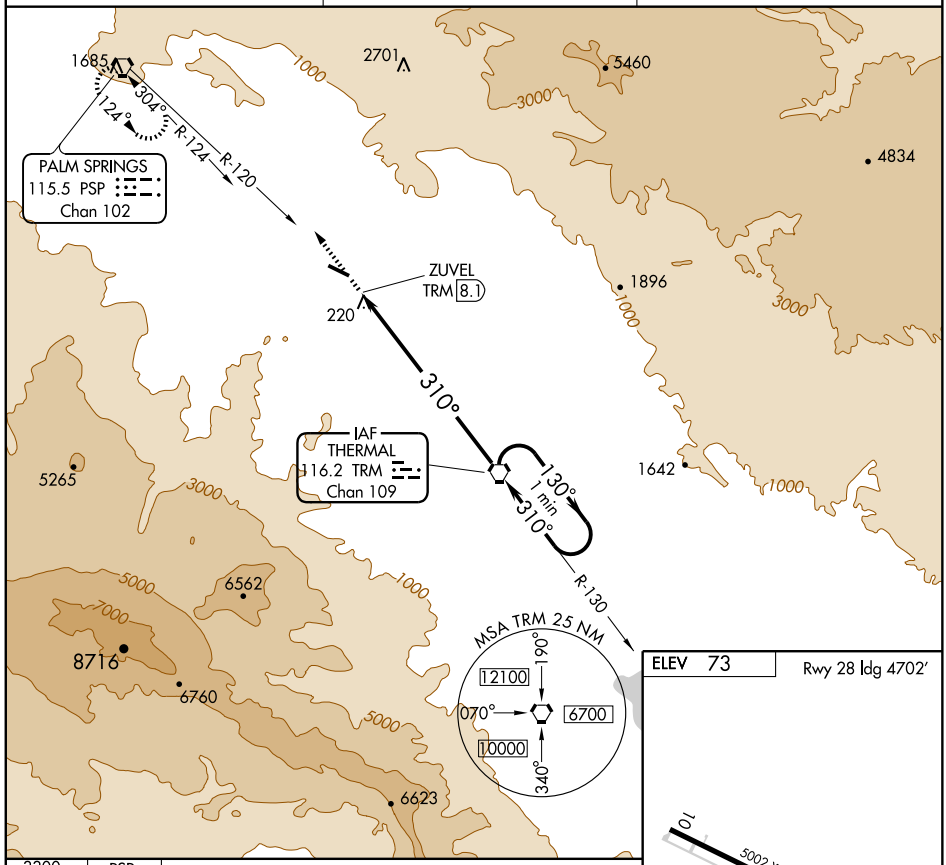
PALM SPRINGS/BERMUDA DUNES (UDD)

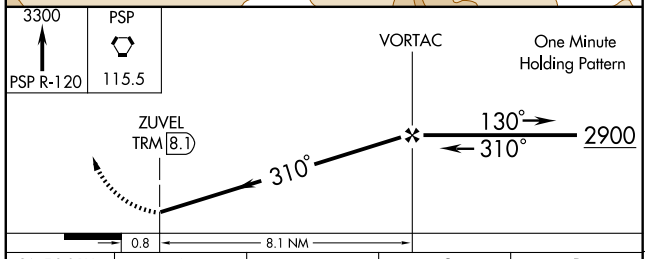
NA

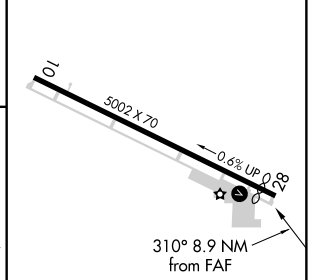
Use Jacqueline Cochran Rgnl altimeter setting.

MISSED APPROACH: Climb to 3300 via PSP R-120 to PSP VORTAC and hold.

JACQUELINE COCHRAN REGIONAL ASOS	SOCAL APP CON ★	UNICOM
118.325	135.275 251.1	122.8 (CTAF) L





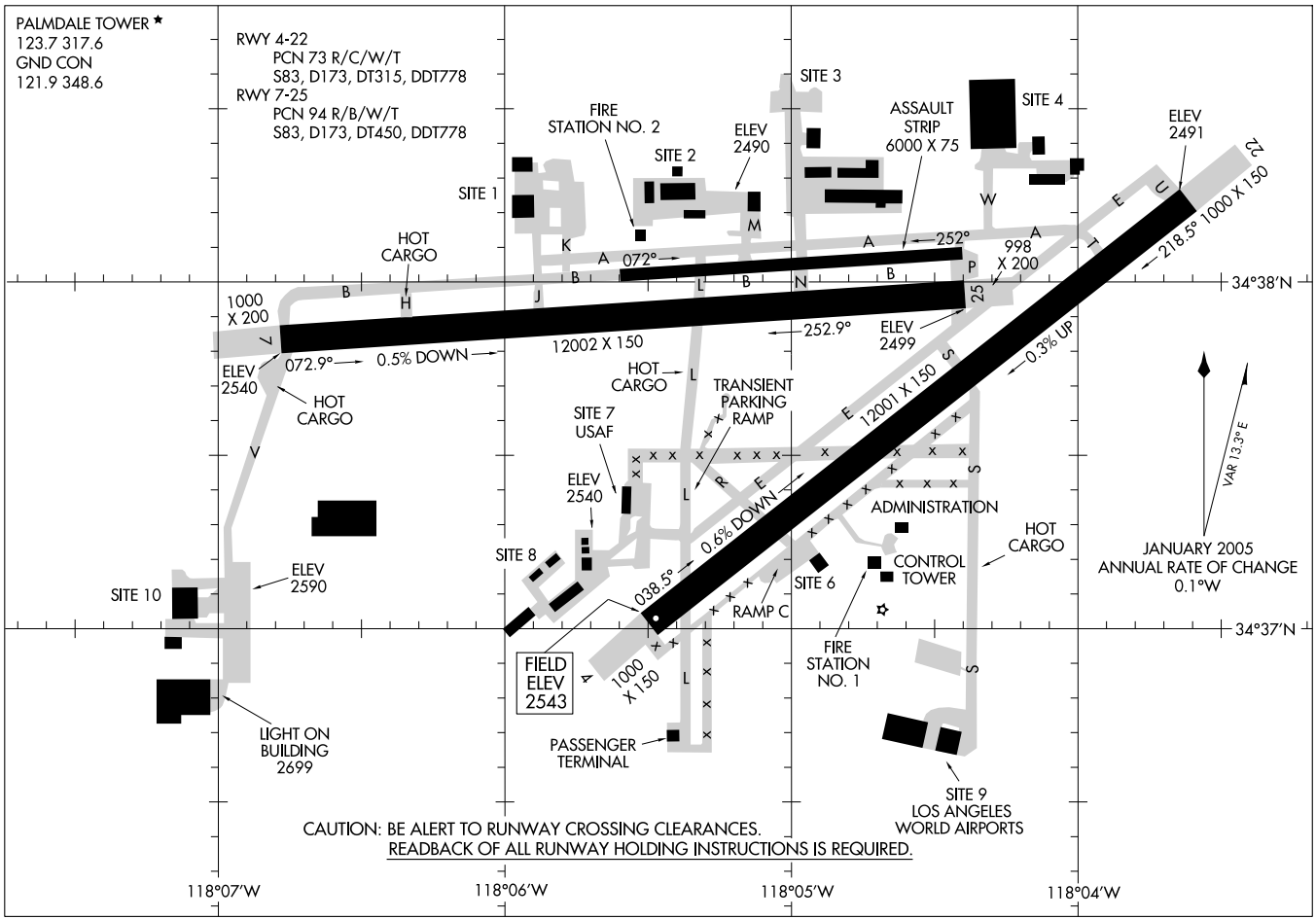


REIL Rwy 28
LIRL Rwy 10-28 L

CATEGORY	A	B	C	D
CIRCLING	920-1 847 (900-1)	920-1¼ 847 (900-1¼)	920-2½ 847 (900-2½)	NA

FAF to MAP 8.1 NM					
Knots	60	90	120	150	180
Min:Sec	8:06	5:24	4:03	3:14	2:42

SW-3, 14 JAN 2010 to 11 FEB 2010



AIRPORT DIAGRAM

AL-310 (FAA)

PALMDALE RGNL/USAF PLANT 42 (PMD)
PALMDALE, CALIFORNIA

HI-ILS/DME RWY 25

PALMDALE REGIONAL/USAF PLANT 42 (KPMD)

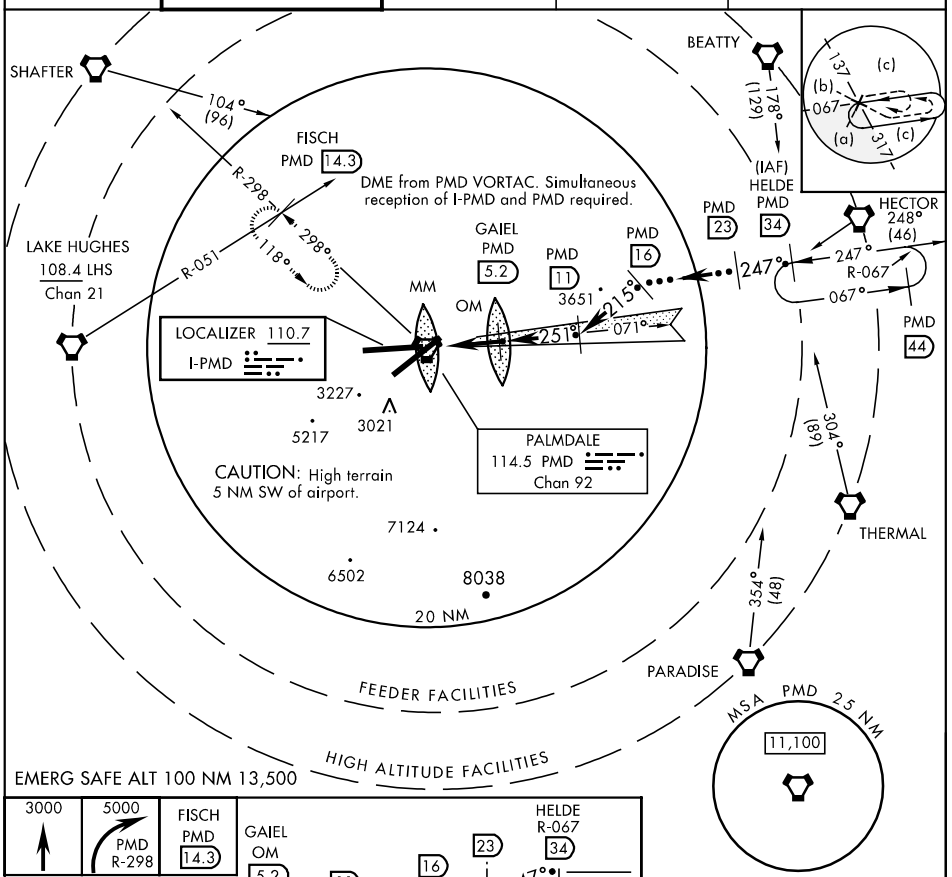
LOCALIZER I-PMD	APCH CRS	Rwy ldg / TDZE / Arpt Elev
110.7	251°	12,002 / 2503 / 2543

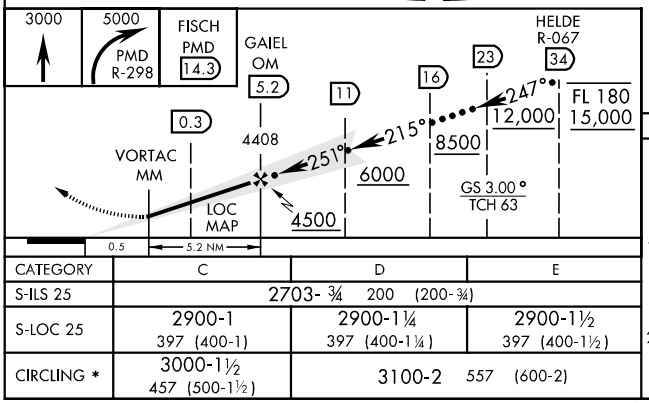
JAL-310 [USAF]

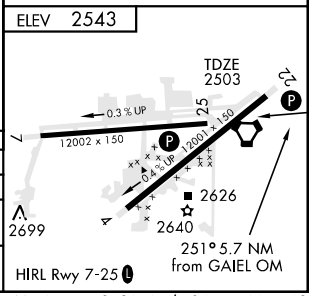
▼ * Circling S of Rwy 7-25 not authorized for CAT E aircraft.

MISSED APPROACH: Climb to 3000 then climbing right turn to 5000 via PMD R-298 to FISCH INT and hold.

JOSHUA APP CON	PALMDALE TOWER ★	GND CON	CTAF	RADAR VECTORING ASOS
124.55 363.0	123.7 317.6	121.9 348.6	123.7	118.275







CATEGORY	C	D	E
S-ILS 25	2703- ¾ 200 (200-¾)		
S-LOC 25	2900-1 397 (400-1)	2900-1¼ 397 (400-1¼)	2900-1½ 397 (400-1½)
CIRCLING *	3000-1½ 457 (500-1½)	3100-2 557 (600-2)	

SW-3, 14 JAN 2010 to 11 FEB 2010

HI-TACAN RWY 25

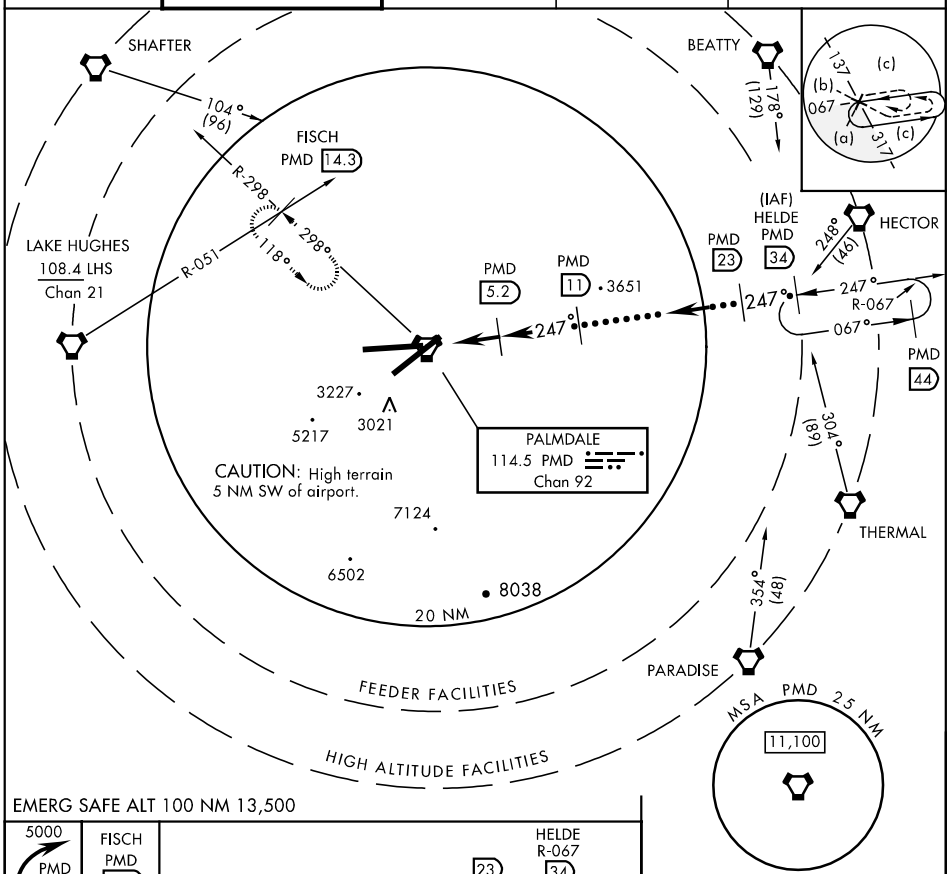
PALMDALE REGIONAL USAF PLANT 42 (KPMD)

TACAN	APCH CRS	Rwy ldg / TDZE / Arpt Elev	JAL-310 [USAF]
PMD Chan **92**	**247°**	**12,002** / **2503** / **2543**	

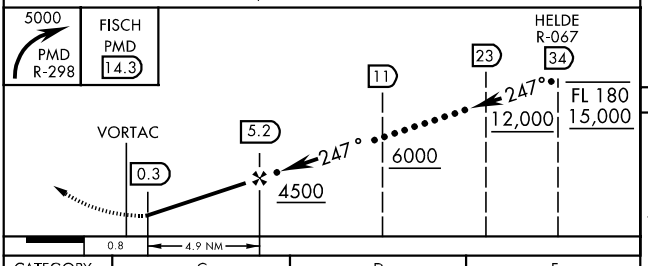
▼ * Circling S of Rwy 7-25 not authorized for CAT E aircraft.

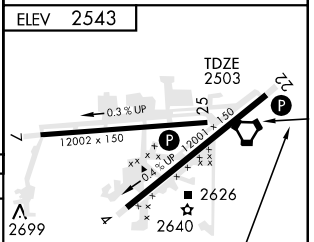
MISSED APPROACH: Climbing right turn to 5000 via PMD R-298 to FISCH INT and hold.

JOSHUA APP CON	PALMDALE TOWER ★	GND CON	CTAF	RADAR VECTORING ASOS
124.55 363.0	**123.7 317.6**	**121.9 348.6**	**123.7**	**118.275**



EMERG SAFE ALT 100 NM 13,500





CATEGORY	C	D	E
S-25	2900-1 397 (400-1)	2900-1¼ 397 (400-1¼)	2900-1½ 397 (400-1½)
CIRCLING *	3000-1½ 457 (500-1½)	3100-2 557 (600-2)	

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC I-PMD	APP CRS	Rwy Idg	12002
110.7	251°	TDZE	2503
		Apt Elev	2543

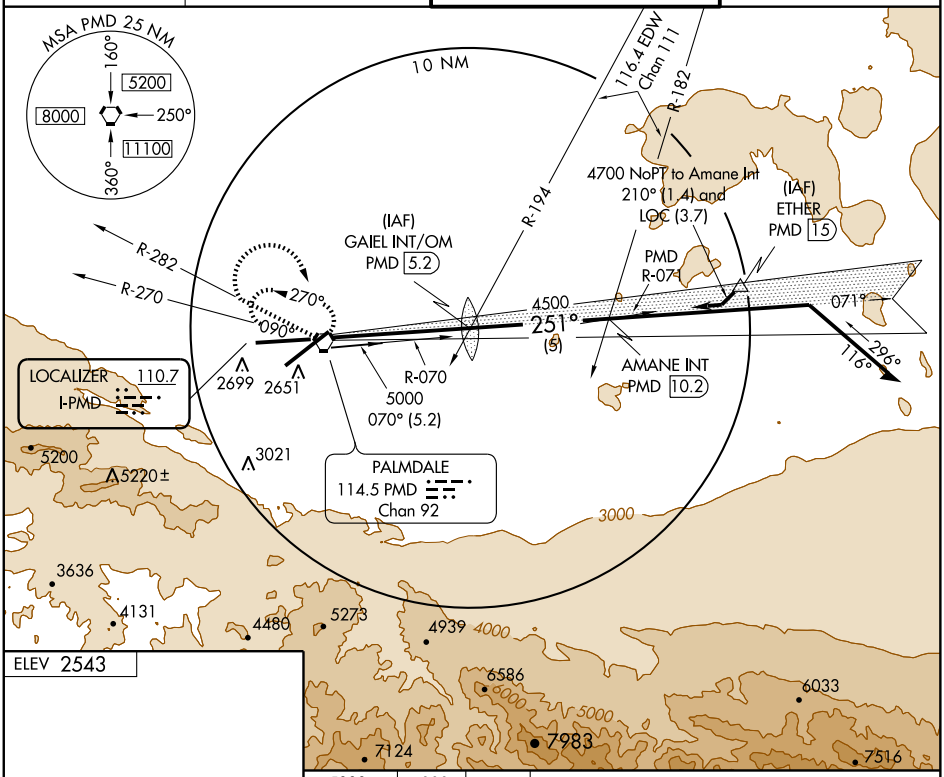
ILS or LOC RWY 25

PALMDALE RGNL/USAF PLANT 42 (PMD)

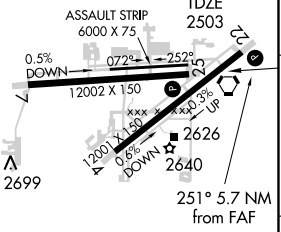
Circling NA south of Rwy 7-25 for Cat. E.
Circling to Rwy 7 NA at night.

MISSED APPROACH: Climb to 5000 via PMD R-282, then climbing right turn to 7000 direct PMD VORTAC and hold.

ASOS	JOSHUA APP CON	PALMDALE TOWER ★	GND CON
118.275	124.55 363.0	123.7 (CTAF) L 317.6	121.9 348.6

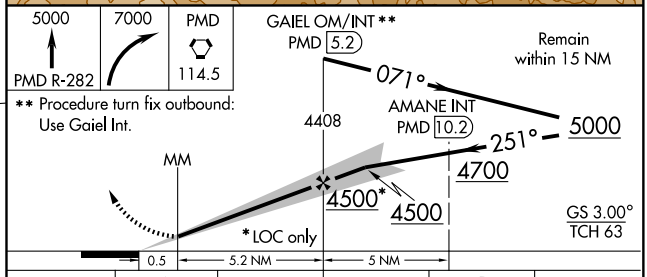


ELEV 2543



HIRL Rwy 4-22 and 7-25 L

FAF to MAP 5.7 NM					
Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54



** Procedure turn fix outbound: Use Gaiel Int.

CATEGORY	A	B	C	D	E
S-ILS 25	2703-1 200 (200-1)				
S-LOC 25	2900-1 397 (400-1)			2900-1¼ 397 (400-1¼)	2900-1½ 397 (400-1½)
CIRCLING	3000-1 457 (500-1)		3000-1½ 457 (500-1½)	3100-2 557 (600-2)	

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	12002
251°	TDZE	2503
	Apt Elev	2543

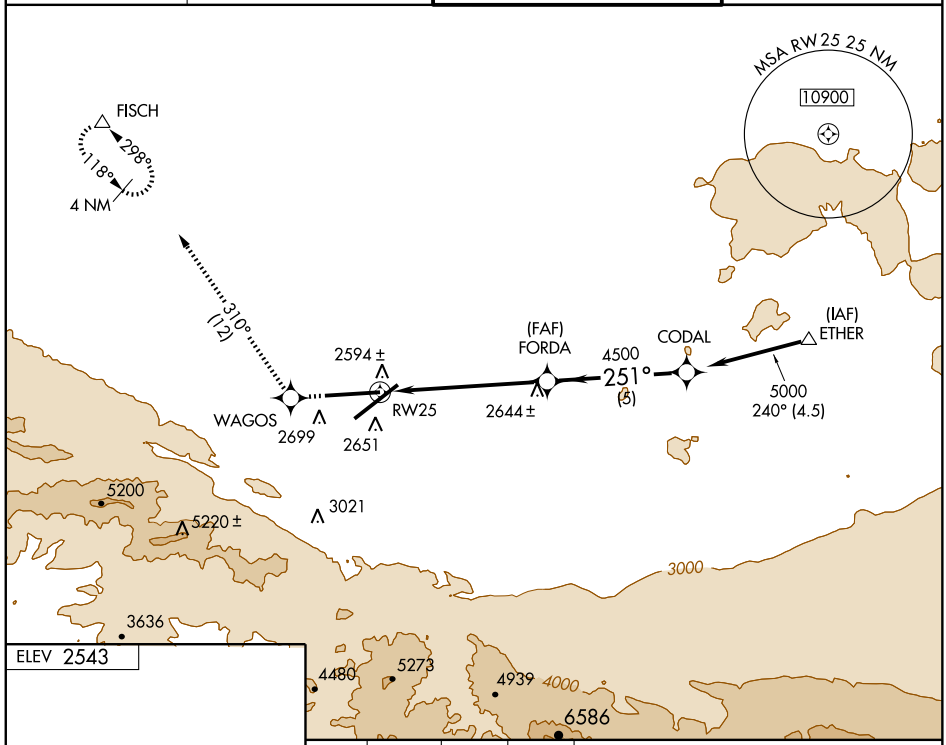
RNAV (GPS) RWY 25

PALMDALE RGNL/USAF PLANT 42 (PMD)

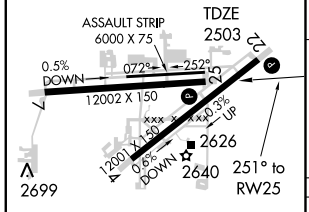
Circling to Rwy 7 NA at night. DME/DME RNP-0.3 NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 44° C (111°F) .

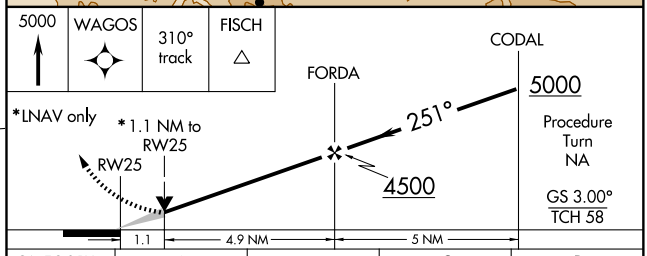
MISSED APPROACH: Climb to 5000 direct WAGOS WP then via 310° track to FISCH WP and hold.

ASOS	JOSHUA APP CON	PALMDALE TOWER ★	GND CON
118.275	124.55 363.0	123.7 (CTAF) L 317.6	121.9 348.6



ELEV 2543





CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/ VNAV DA	2840-1¼ 337 (300-1¼)			
LNAV MDA	2900-1 397 (400-1)			2900-1¼ 397 (400-1¼)
CIRCLING	3000-1 457 (500-1)		3000-1½ 457 (500-1½)	3100-2 557 (600-2)

HIRL Rwy 4-22 and 7-25 L

PALMDALE, CALIFORNIA

AL-310 (FAA)

VORTAC PMD	APP CRS	Rwy Idg	12002
114.5	265°	TDZE	2503
Chan 92		Apt Elev	2543

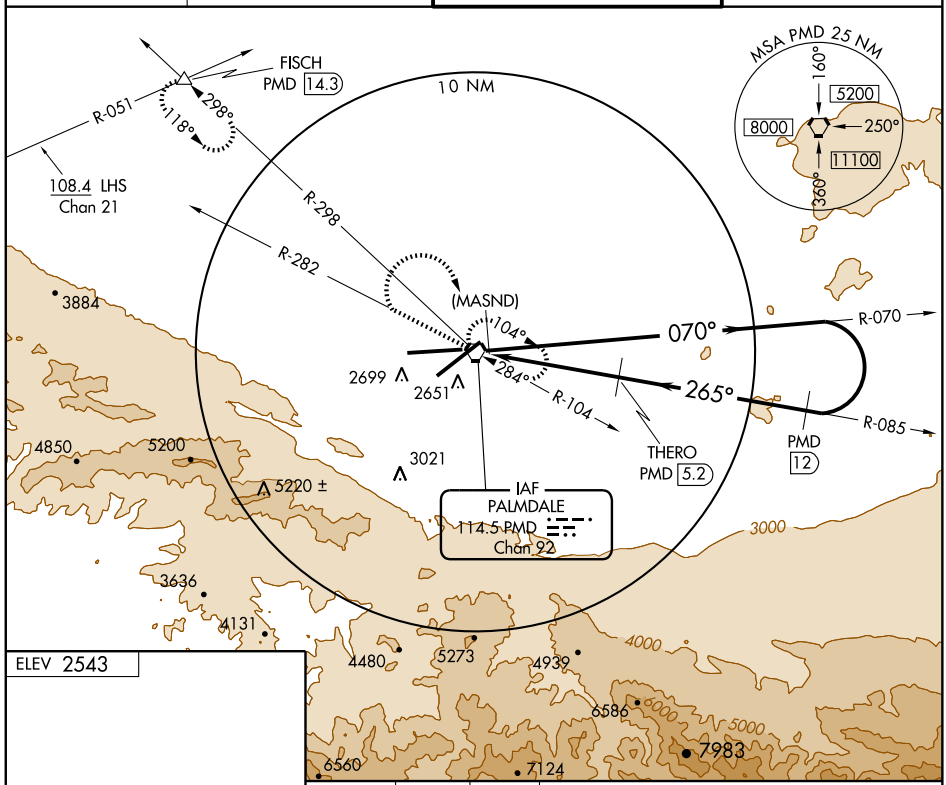
VOR/DME or TACAN RWY 25

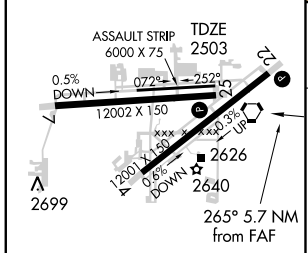
PALMDALE RGNL/USAF PLANT 42 (PMD)

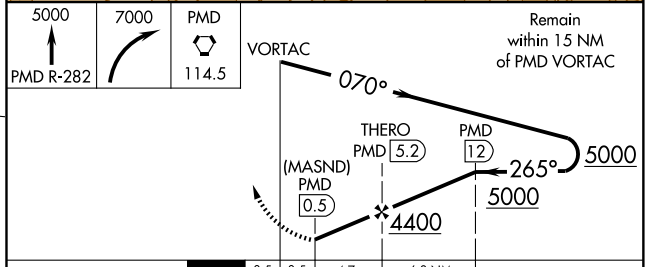
Circling NA South of Rwy 7-25 for Cat. E. Circling to Rwy 7 NA at night.

MISSED APPROACH: Climb to 5000 via PMD R-282 then climbing right turn to 7000 direct PMD VORTAC and hold. (TACAN aircraft climbing right turn to 5000 via R-298 to FISCH Int/14.3 DME and hold SE left turn 298° inbound.)

ASOS	JOSHUA APP CON	PALMDALE TOWER ★	GND CON
118.275	124.55 363.0	123.7 (CTAF) L 317.6	121.9 348.6







CATEGORY	A	B	C	D	E
S-25	2900-1¼ 397 (400-1¼)				2900-1½ 397 (400-1½)
CIRCLING	3000-1¼ 457 (500-1¼)		3000-1½ 457 (500-1½)	3100-2 557 (600-2)	

HIRL Rwy 4-22 and 7-25 L

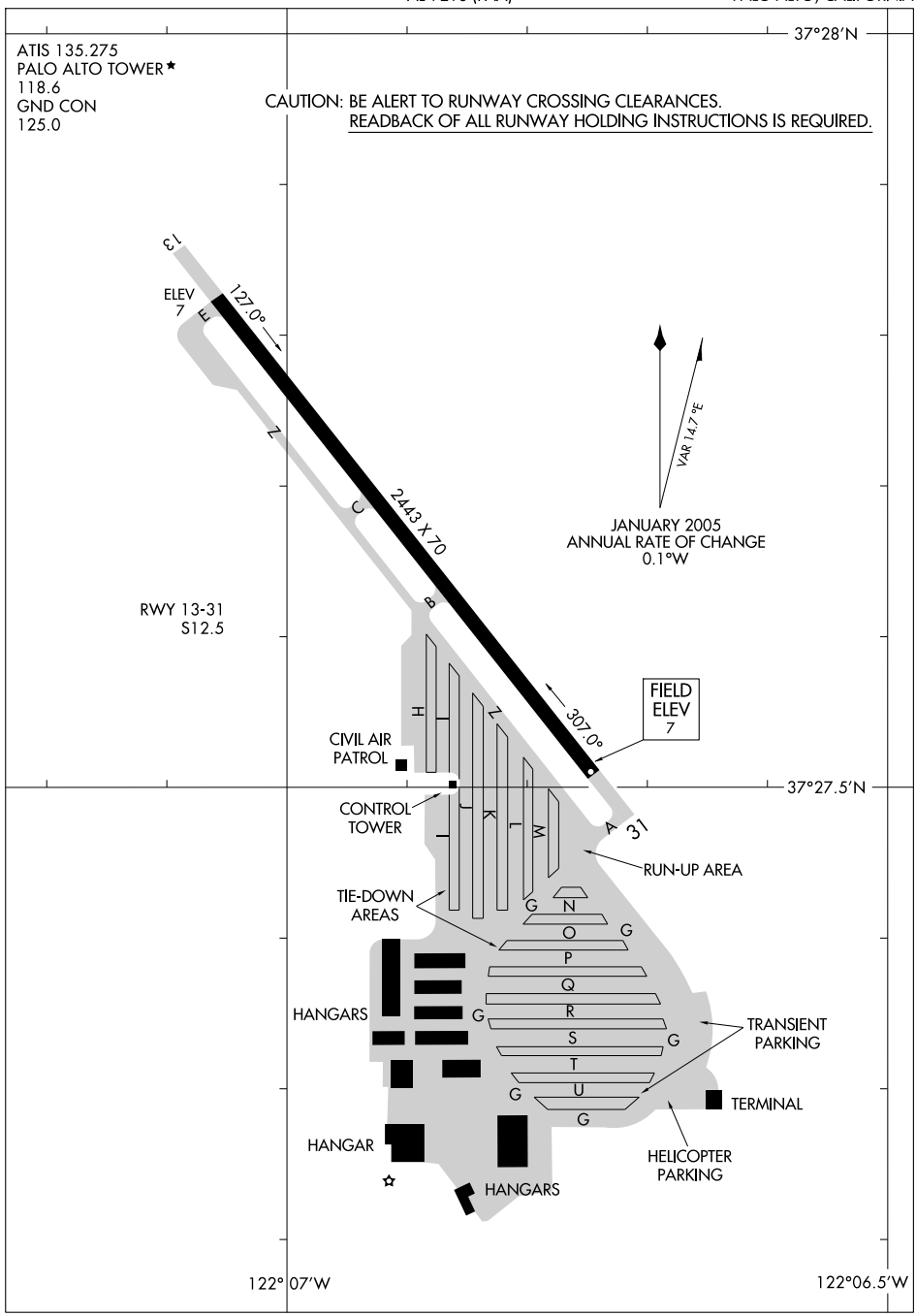
SW-3, 14 JAN 2010 to 11 FEB 2010

08213

AIRPORT DIAGRAM

PALO ALTO AIRPORT OF SANTA CLARA COUNTY (PAO)

AL-9216 (FAA) PALO ALTO, CALIFORNIA



SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	2443
322°	TDZE	3
	Apt Elev	3

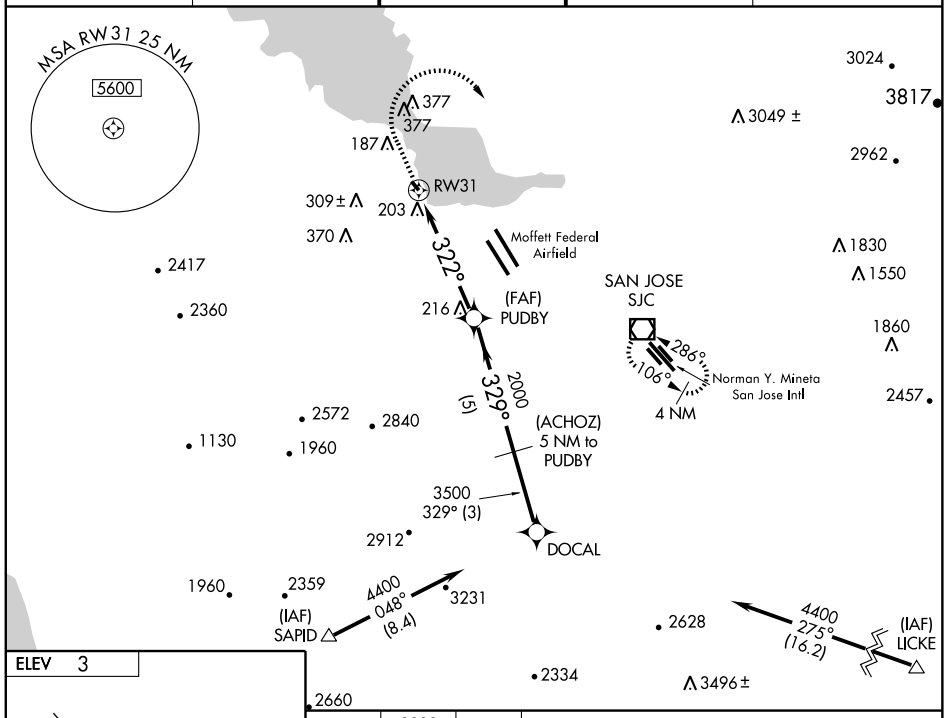
GPS RWY 31

PALO ALTO ARPT OF SANTA CLARA COUNTY (PAO)

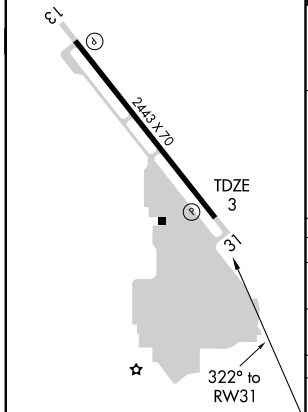
When control tower closed, use Norman Y. Mineta San Jose Intl altimeter setting.
Circling not authorized southwest of Rwy 13-31.

MISSED APPROACH: Climb to 1000 then climbing right turn to 3000 direct SJC VOR/DME and hold.

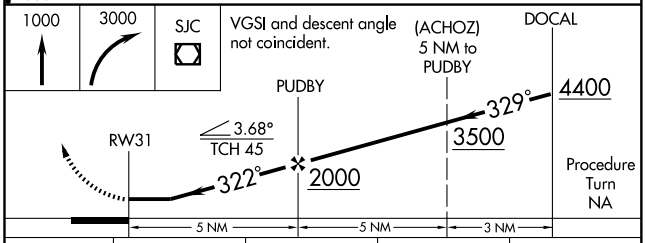
ATIS	NORCAL APP CON	PALO ALTO TOWER★	GND CON	UNICOM
135.275	121.3 270.35	118.6 (CTAF)	125.0	122.95



ELEV 3



REIL Rwys 13 and 31
MIRL Rwy 13-31



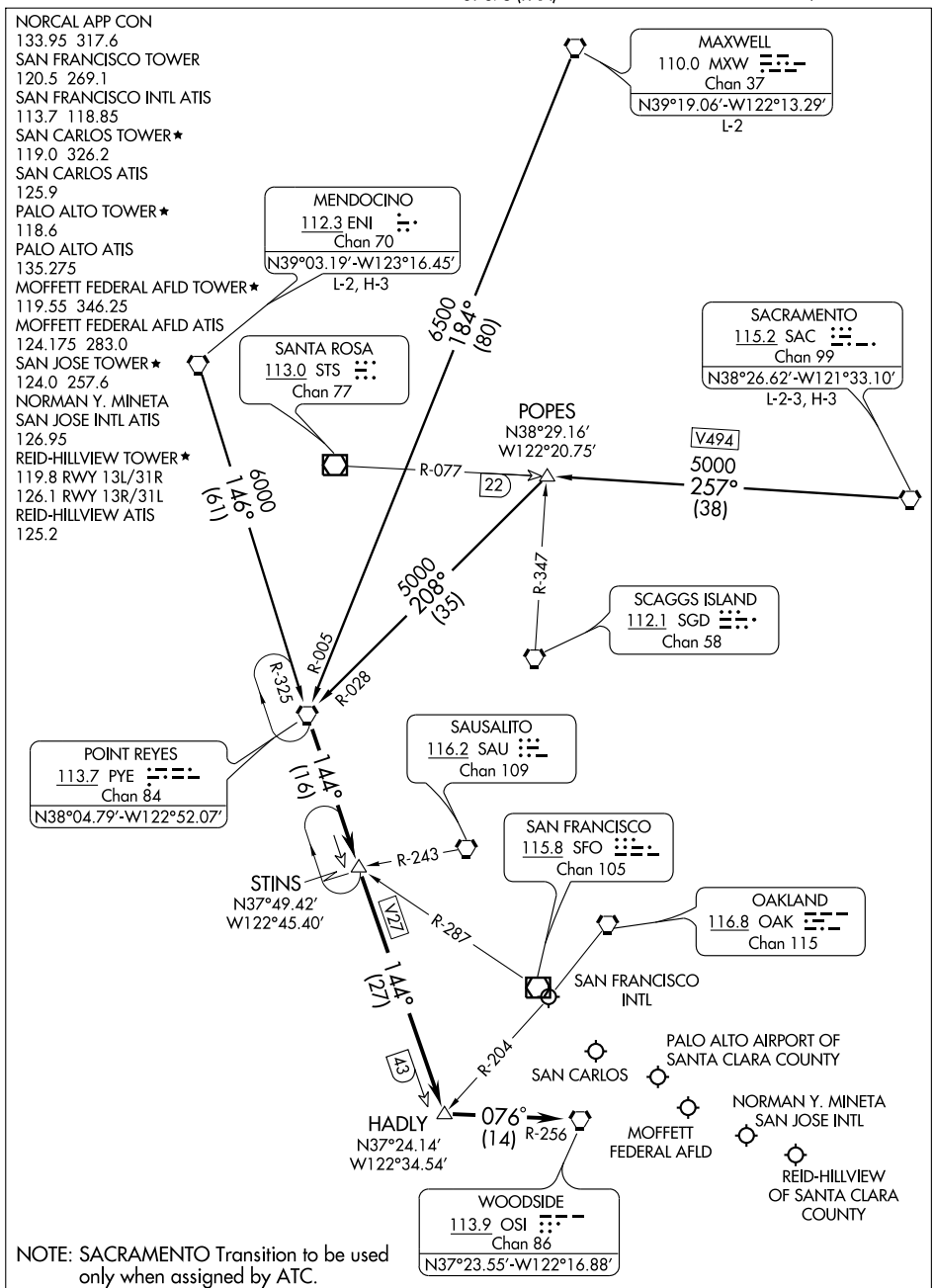
CATEGORY	A	B	C	D
S-31	460-1 457 (500-1)		NA	
CIRCLING	460-1 457 (500-1)	500-1 497 (500-1)	NA	
NORMAN Y. MINETA SAN JOSE INTL ALTIMETER SETTING MINIMUMS				
S-31	500-1 497 (500-1)		NA	
CIRCLING	500-1 497 (500-1)	520-1 517 (600-1)	NA	

SW-2, 14 JAN 2010 to 11 FEB 2010

POINT REYES ONE ARRIVAL

ST-375 (FAA)

SAN FRANCISCO, CALIFORNIA



NOTE: SACRAMENTO Transition to be used only when assigned by ATC.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SW-2, 14 JAN 2010 to 11 FEB 2010

ARRIVAL DESCRIPTION

MAXWELL TRANSITION (MXW.PYE1): From over MXW VORTAC via MXW R-184 and PYE R-005 to PYE VORTAC. Thence....

MENDOCINO TRANSITION (ENI.PYE1): From over ENI VORTAC via ENI R-146 and PYE R-325 to PYE VORTAC. Thence....

SACRAMENTO TRANSITION (SAC. PYE1): From over SAC VORTAC via SAC R-257 and PYE R-028 to PYE VORTAC. Thence....

....From over PYE VORTAC via PYE R-144 to HADLY INT, then via OSI R-256 to OSI VORTAC. Expect radar vectors to final approach course.

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME SJC	APP CRS		
114.1	286°	Rwy Idg	2443
Chan 88		TDZE	3
		Apt Elev	3

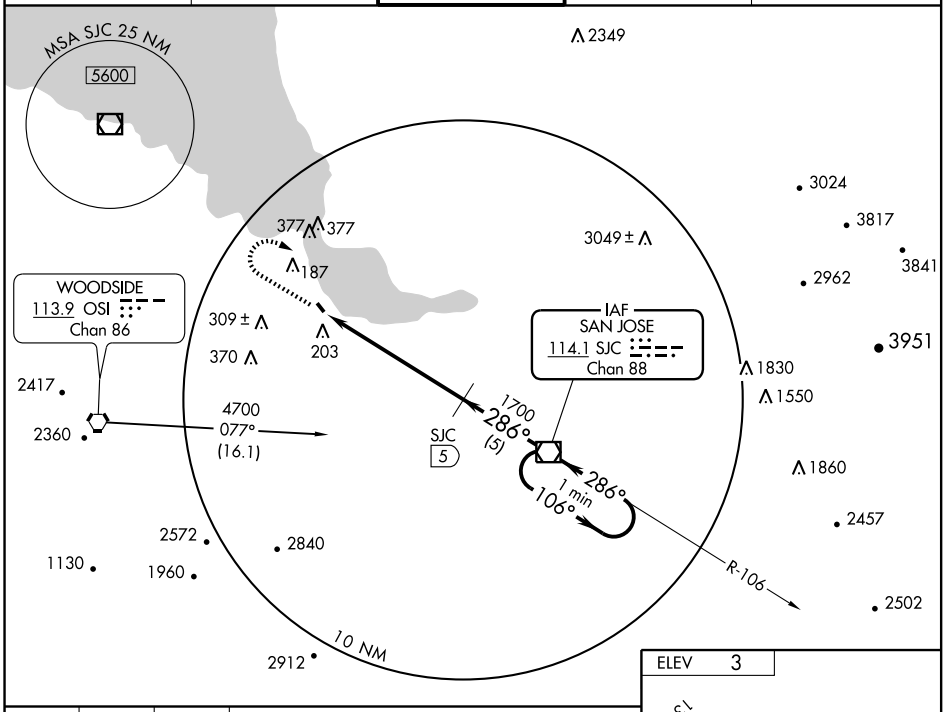
VOR/DME RWY 31

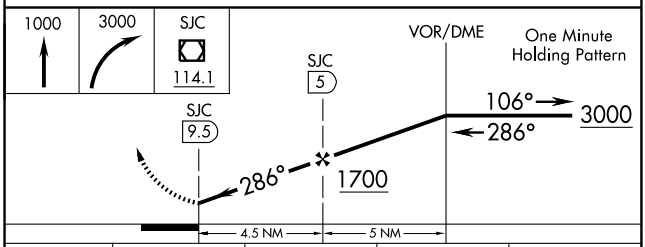
PALO ALTO ARPT OF SANTA CLARA COUNTY (PAO)

When control tower closed, use Norman Y. Mineta San Jose Intl altimeter setting.
Circling not authorized SW of Rwy 13-31.

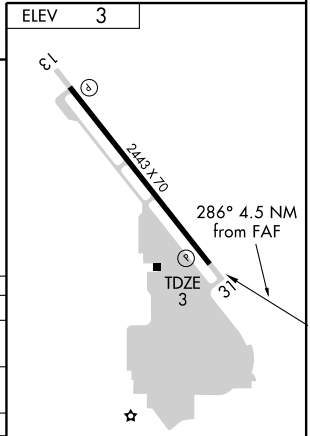
MISSED APPROACH: Climb to 1000 then climbing right turn to 3000 direct SJC VOR/DME and hold.

ATIS	NORCAL APP CON	PALO ALTO TOWER★	GND CON	UNICOM
135.275	121.3 270.35	118.6 (CTAF)	125.0	122.95





CATEGORY	A	B	C	D
S-31	460-1 457 (500-1)		NA	
CIRCLING	460-1 457 (500-1)	540-1 537 (600-1)	NA	
NORMAN Y. MINETA SAN JOSE INTL ALTIMETER SETTING MINIMUMS				
S-31	500-1 497 (500-1)		NA	
CIRCLING	500-1 497 (500-1)	580-1 577 (600-1)	NA	



REIL Rwys 13 and 31
MIRL Rwy 13-31

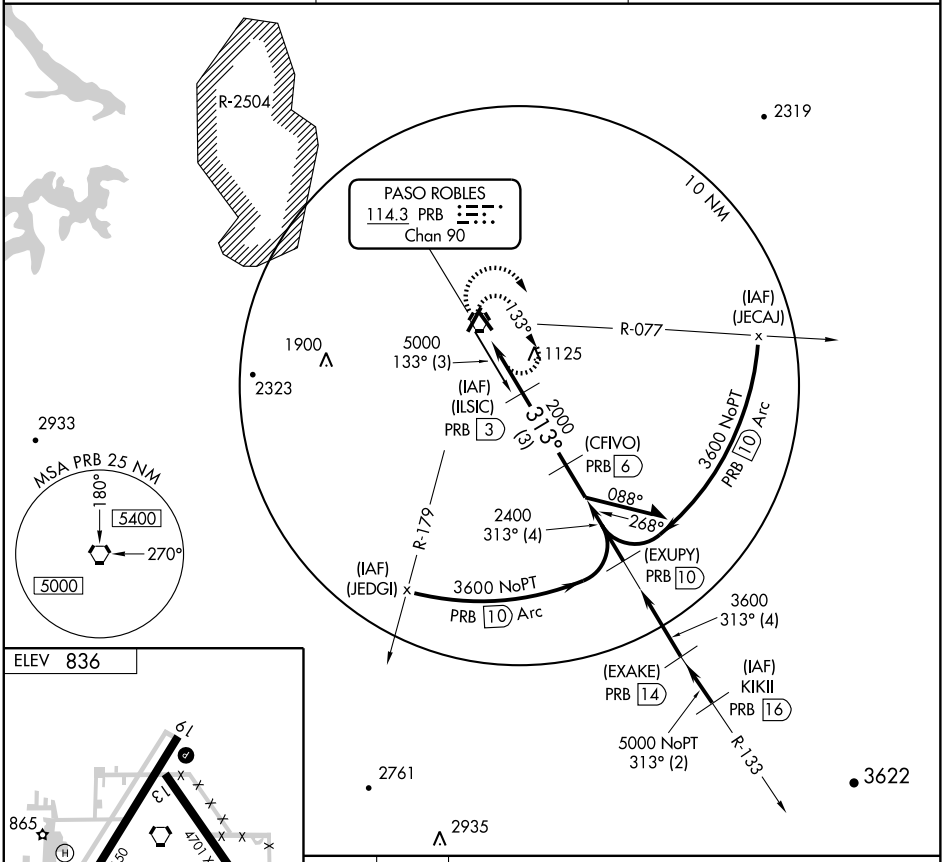
SW-2, 14 JAN 2010 to 11 FEB 2010

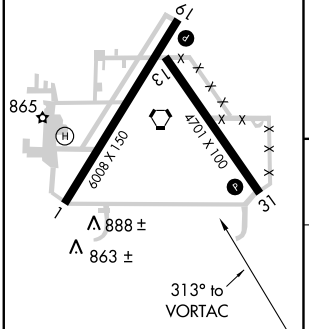
VORTAC PRB 114.3 Chan 90	APP CRS 313°	Rwy Idg N/A TDZE N/A Apt Elev 836

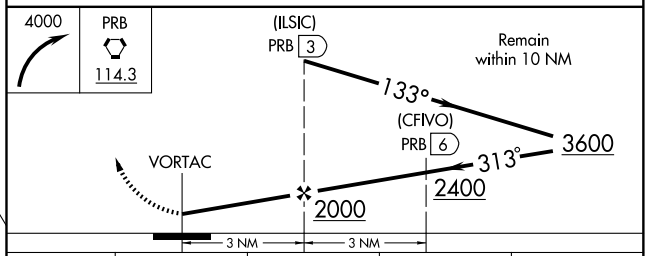
VOR/DME or GPS-B
PASO ROBLES MUNI (PRB)

MISSED APPROACH: Climbing right turn to 4000 in PRB VORTAC holding pattern.

ASOS	OAKLAND CENTER	UNICOM
120.125	128.7 307.0	123.0 (CTAF) L







REIL Rwy 19
MIRL Rwy 13-31 L
HIRL Rwy 1-19 L

CATEGORY	A	B	C	D
CIRCLING	1440-1 604 (700-1)		1440-1¾ 604 (700-1¾)	1440-2 604 (700-2)

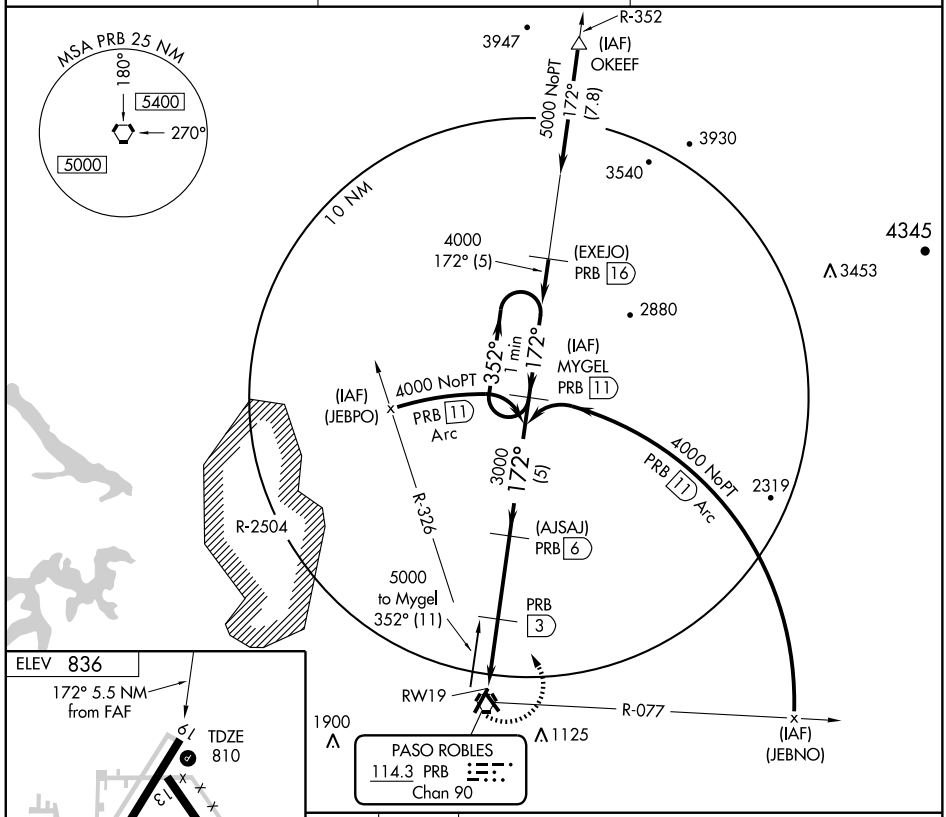
VORTAC PRB	APP CRS	Rwy Idg	6009
114.3	172°	TDZE	810
Chan 90		Apt Elev	836

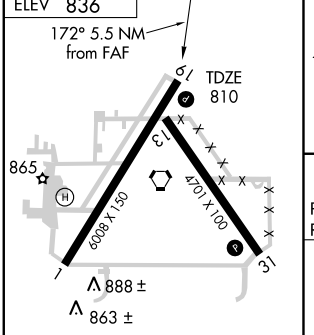
VOR/DME or GPS RWY 19

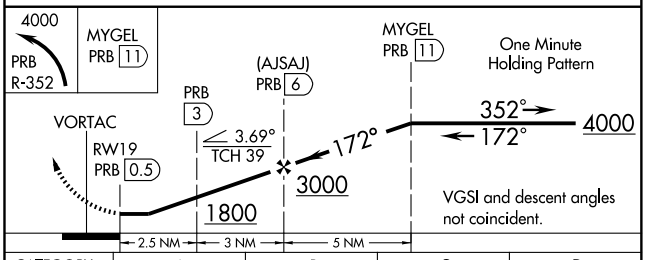
PASO ROBLES MUNI (PRB)

MISSED APPROACH: Climbing left turn to 4000 via PRB R-352 to MYGEL/11 DME and hold.

ASOS	OAKLAND CENTER	UNICOM
120.125	128.7 307.0	123.0 (CTAF) L







CATEGORY	A	B	C	D
S-19	1200-1 390 (400-1)			1200-1¼ 390 (400-1¼)
CIRCLING	1300-1 464 (500-1)		1340-1½ 504 (600-1½)	1440-2 604 (700-2)

REIL Rwy 19
MIRL Rwy 13-31 L
HIRL Rwy 1-19 L

SW-3, 14 JAN 2010 to 11 FEB 2010

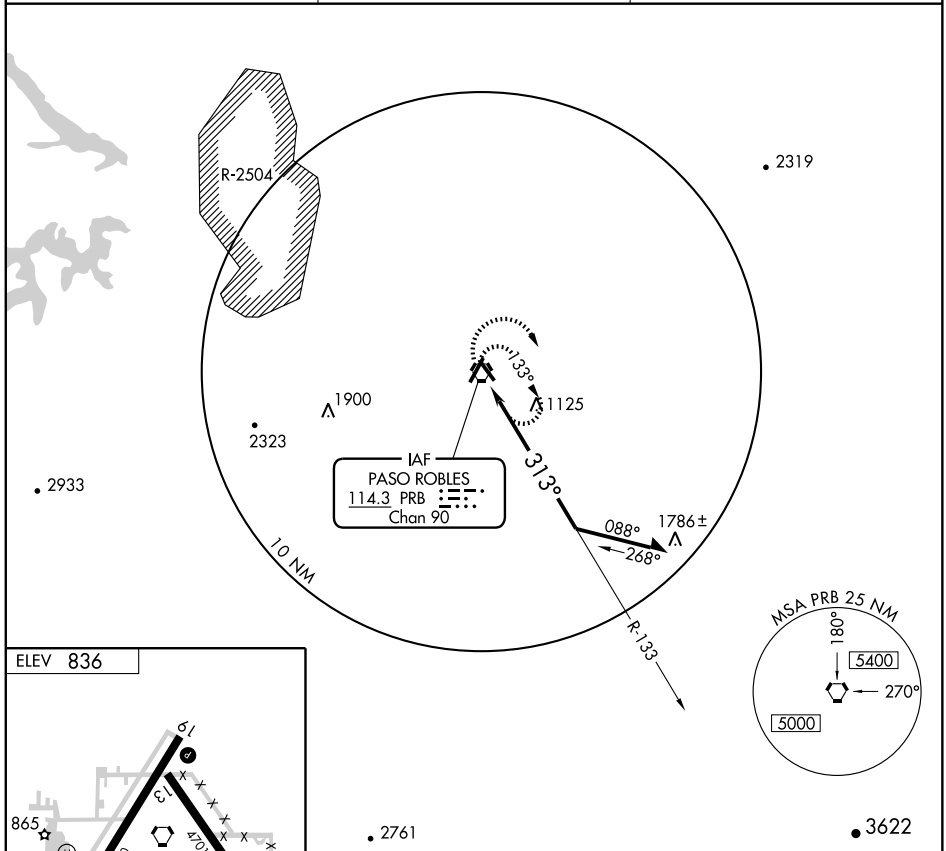
VORTAC PRB	APP CRS	Rwy Idg	N/A
114.3	313°	TDZE	N/A
Chan 90		Apt Elev	836

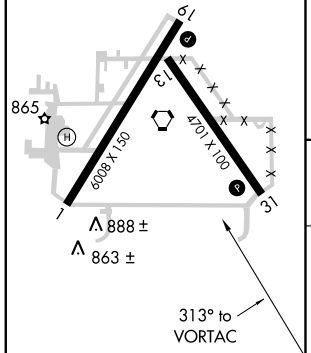
VOR or GPS-A

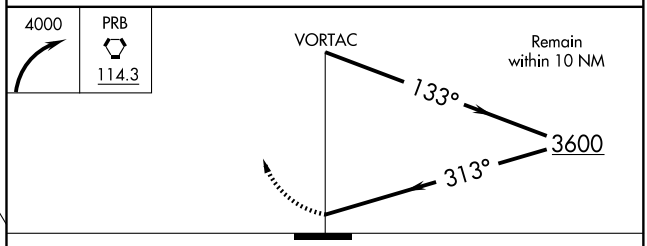
PASO ROBLES MUNI (PRB)

MISSED APPROACH: Climbing right turn to 4000 in PRB VORTAC holding pattern.

ASOS	OAKLAND CENTER	UNICOM
120.125	128.7 307.0	123.0 (CTAF) L







REIL Rwy 19
MIRL Rwy 13-31 L
HIRL Rwy 1-19 L

CATEGORY	A	B	C	D
CIRCLING	2100-1¼ 1264 (1300-1¼)	2100-1½ 1264 (1300-1½)	2100-3	1264 (1300-3)

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3601
290°	TDZE	87
	Apt Elev	87

GPS RWY 29

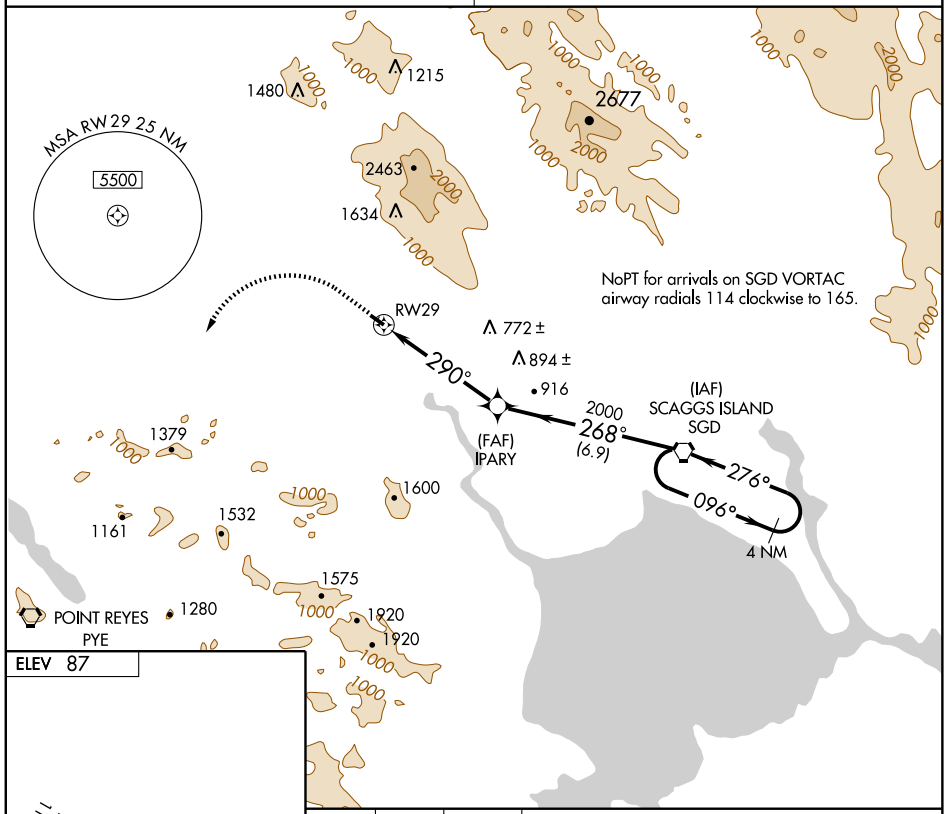
PETALUMA MUNI (O69)

T
NA Use Santa Rosa altimeter setting; when not received procedure not authorized.

MISSED APPROACH: Climb to 2000, then climbing left turn to 3500 direct to PYE VORTAC.

OAKLAND CENTER
127.8 353.5

UNICOM
122.7 (CTAF) L



CATEGORY	A	B	C	D
S-29	900-1 813 (900-1)	900-1 ¼ 813 (900-1 ¼)	NA	
CIRCLING	900-1 813 (900-1)	900-1¼ 813 (900-1 ¼)	NA	

MIRL Rwy 11-29

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC SGD 112.1 Chan 58	APP CRS 276°	Rwy Idg 3601 TDZE 87 Apt Elev 87

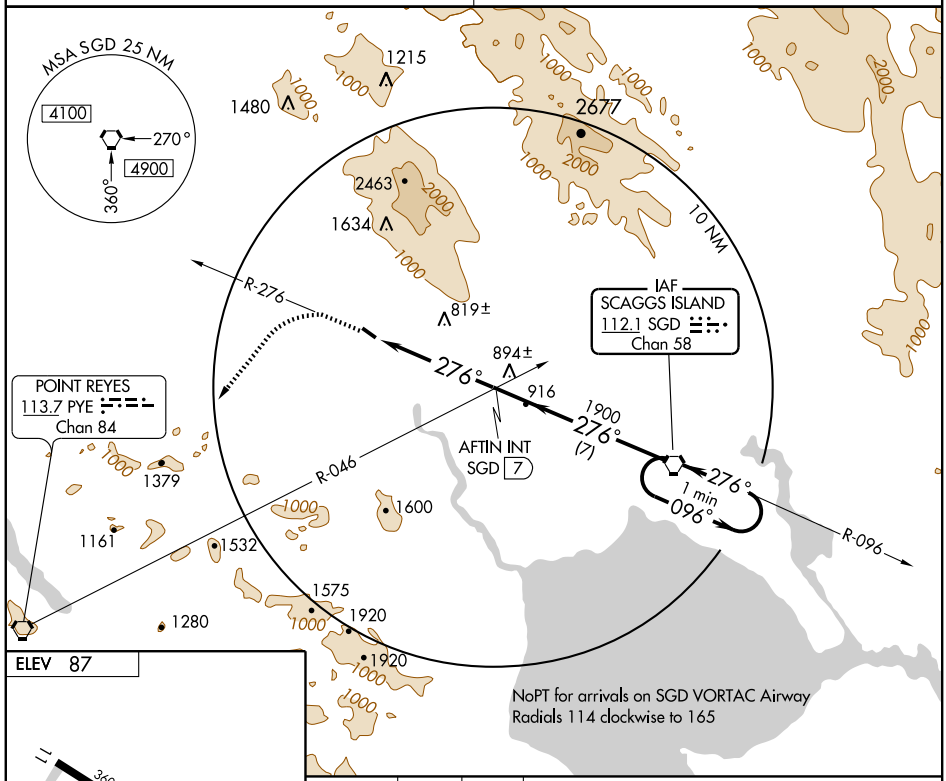
VOR RWY 29

PETALUMA MUNI (O69)

NA Use Santa Rosa altimeter setting; when not received, procedure not authorized.

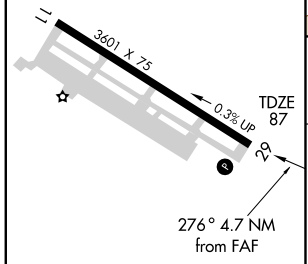
MISSED APPROACH: Climb to 2000 via SGD R-276 then climbing left turn to 3500 direct PYE VORTAC.

OAKLAND CENTER	UNICOM
127.8 353.5	122.7 (CTAF)



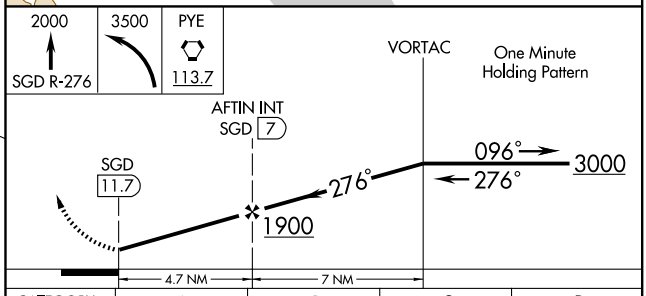
NoPT for arrivals on SGD VORTAC Airway Radials 114 clockwise to 165

ELEV 87



MIRL Rwy 11-29

FAF to MAP 4.7 NM					
Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34



CATEGORY	A	B	C	D
S-29	1260-1¼ 1173 (1200-1¼)	1260-1½ 1173 (1200-1½)	NA	
CIRCLING	1260-1¼ 1173 (1200-1¼)	1260-1½ 1173 (1200-1½)	NA	

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	4201
046°	TDZE	2585
	Apt Elev	2585

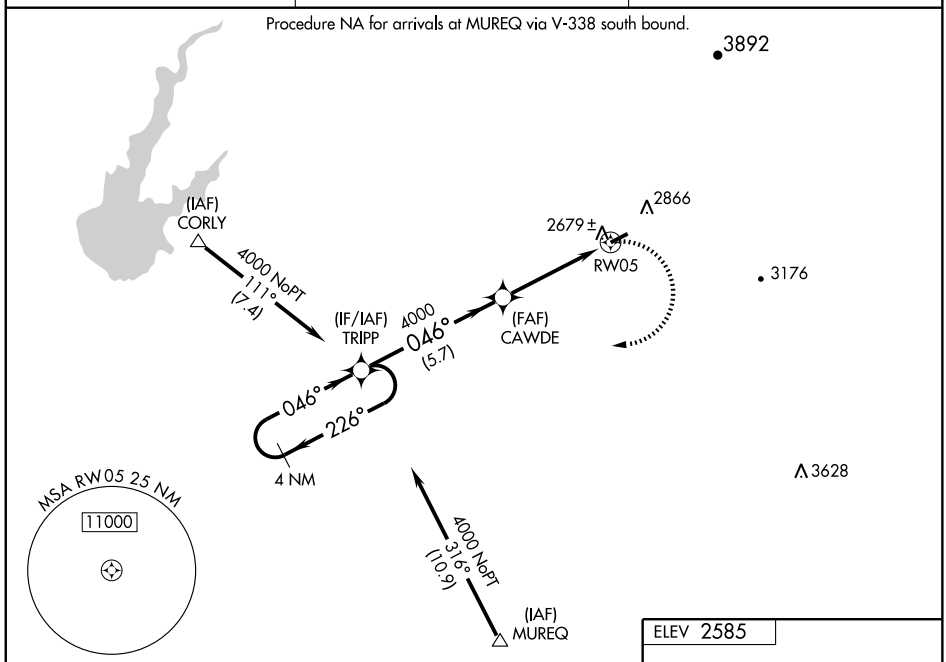
RNAV (GPS) RWY 5
PLACERVILLE (PVF)

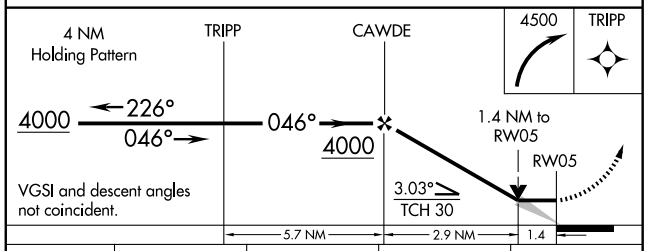
Circling NA northwest of Rwy 5-23.
DME/DME RNP- 0.3 NA.
NA Obtain local altimeter setting on CTAF, when not received use Sacramento Mather altimeter setting.
VDP NA with Sacramento Mather altimeter setting.

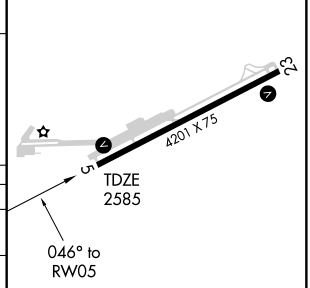
MISSED APPROACH: Climbing right turn to 4500 direct TRIPP and hold.

AW0S-3	NORCAL APP CON	UNICOM
128.125	127.4 317.5	122.8 (CTAF) L

Procedure NA for arrivals at MUREQ via V-338 south bound.







CATEGORY	A	B	C	D
LNAV MDA	3040-1 455 (500-1)		NA	
CIRCLING	3040-1 455 (500-1)	3280-1 695 (700-1)	NA	
SACRAMENTO MATHER ALTIMETER SETTING MINIMUMS				
LNAV MDA	3440-1 855 (900-1)	3440-1¼ 855 (900-1¼)	NA	
CIRCLING	3460-1 875 (900-1)	3700-1½ 1115 (1200-1½)	NA	

MIRL Rwy 5-23 L

SW-2, 14 JAN 2010 to 11 FEB 2010

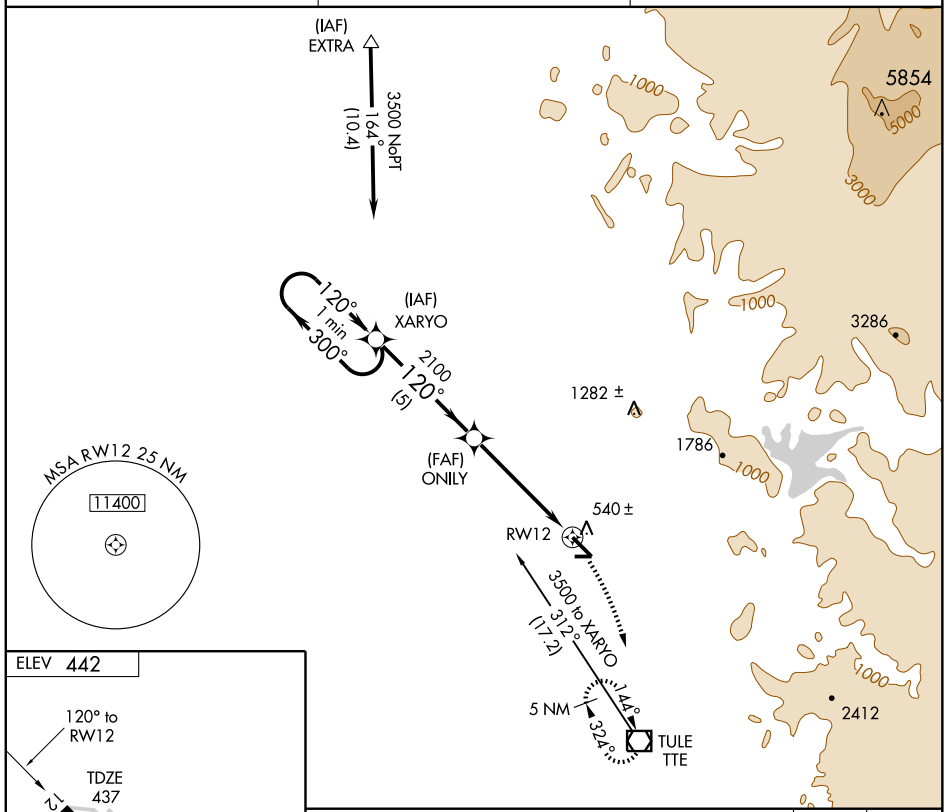
APP CRS	Rwy Idg	5908
120°	TDZE	437
	Apt Elev	442

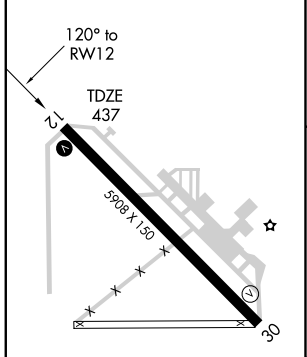
GPS RWY 12
PORTERVILLE MUNI (PTV)

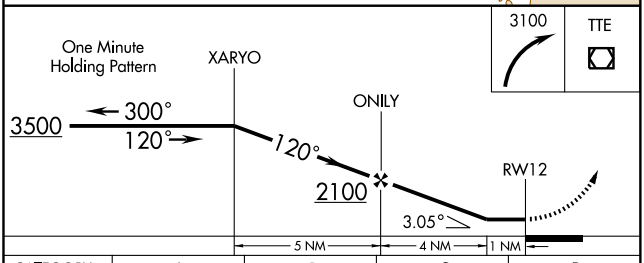
T
NA

MISSED APPROACH: Climbing right turn to 3100 direct TTE VOR/DME and hold.

AWOS-3	BAKERSFIELD APP CON ★	UNICOM
134.625	120.5	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-12	800-1 363 (400-1)			800-1¼ 363 (400-1¼)
CIRCLING	880-1 438 (500-1)	900-1 458 (500-1)	900-1½ 458 (500-1½)	1000-2 558 (600-2)

REIL Rwy 30
HIRL Rwy 12-30 L

SW-2, 14 JAN 2010 to 11 FEB 2010

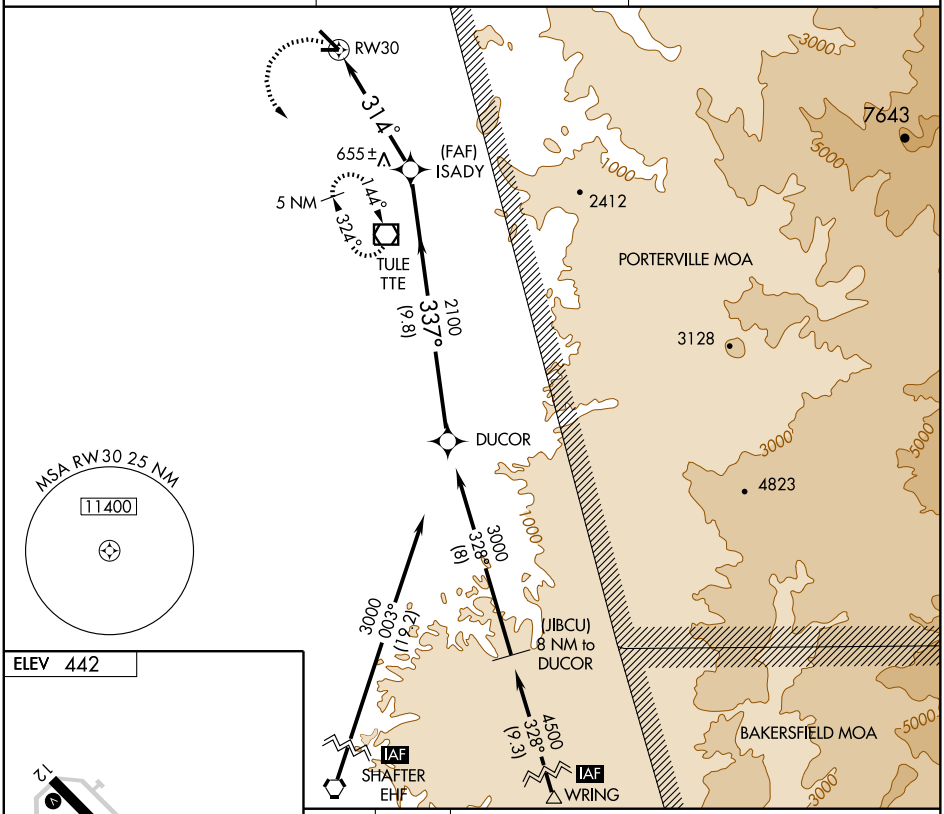
APP CRS	Rwy Idg	5908
314°	TDZE	442
	Apt Elev	442

GPS RWY 30
PORTERVILLE MUNI (PTV)

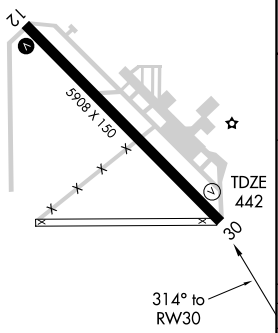
T NA — IAF ARM APPROACH MODE PRIOR TO IAF.

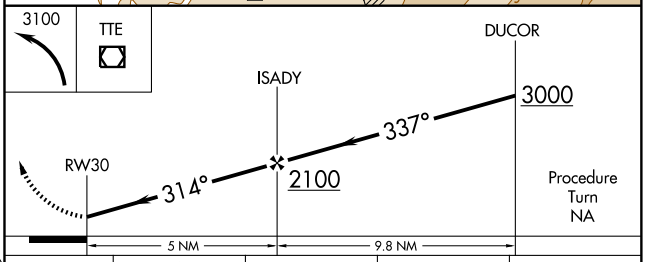
MISSED APPROACH: Climbing left turn to 3100 direct TTE VOR/DME and hold.

AWOS-3	BAKERFIELD APP CON★	UNICOM
134.625	120.5	122.8 (CTAF) L



ELEV 442





CATEGORY	A	B	C	D
S-30	900-1 458 (500-1)		900-1¼ 458 (500-1¼)	900-1½ 458 (500-1½)
CIRCLING	900-1 458 (500-1)		900-1½ 458 (500-1½)	1000-2 558 (600-2)

REIL Rwy 30
HIRL Rwy 12-30 L

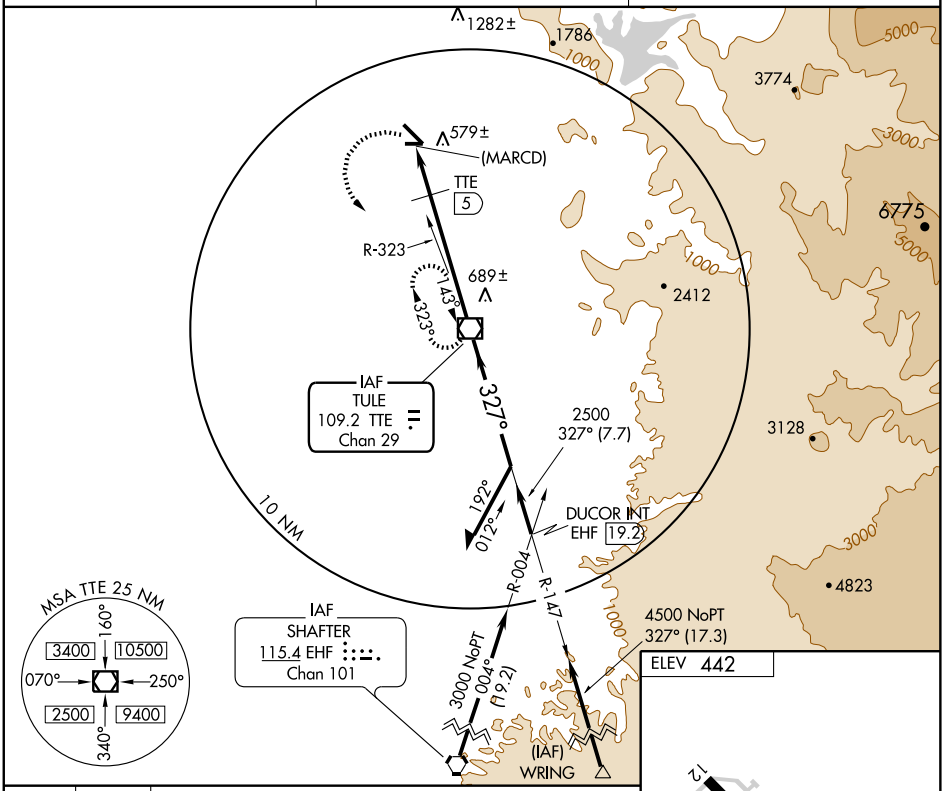
SW-2, 14 JAN 2010 to 11 FEB 2010

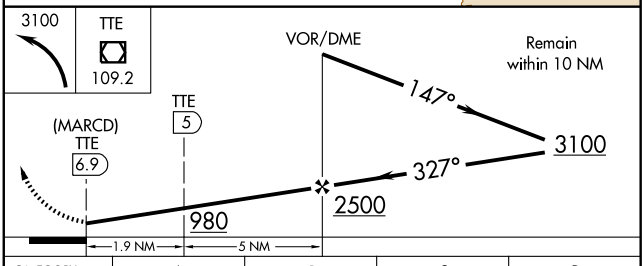
VOR/DME TTE	APP CRS	Rwy Idg	N/A
109.2	327°	TDZE	N/A
Chan 29		Apt Elev	442

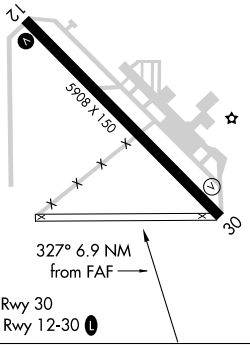
VOR or GPS-A
PORTERVILLE MUNI (PTV)

MISSED APPROACH: Climbing left turn to 3100 direct TTE VOR/DME and hold.

AWOS-3	BAKERFIELD APP CON★	UNICOM
134.625	120.5	122.8 (CTAF) L







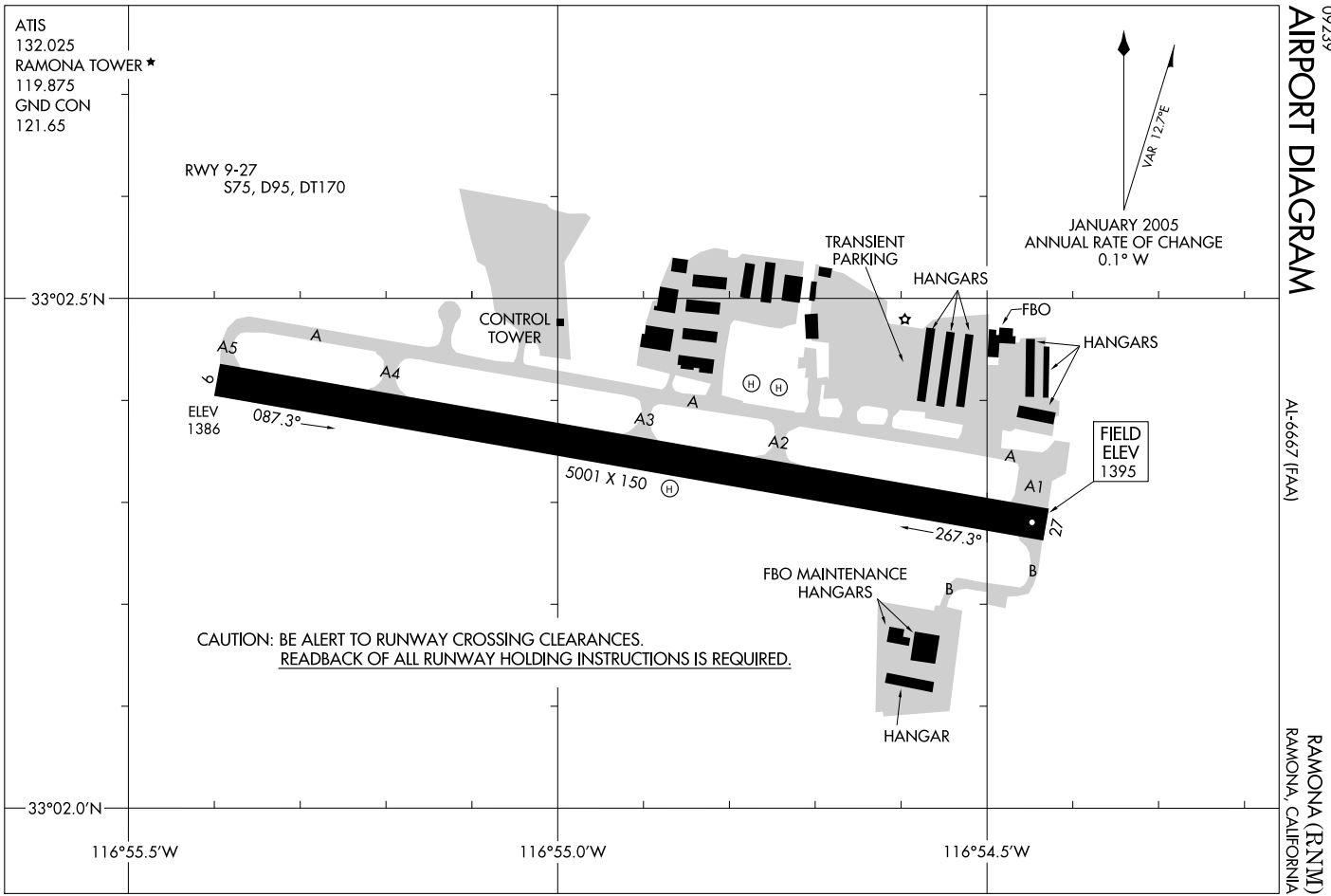
CATEGORY	A	B	C	D
CIRCLING	980-1 538 (600-1)		980-1½ 538 (600-1½)	1000-2 558 (600-2)
DME MINIMA				
CIRCLING	880-1 438 (500-1)	900-1 458 (500-1)	900-1½ 458 (500-1½)	1000-2 558 (600-2)

REIL Rwy 30
HIRL Rwy 12-30 L

FAF to MAP 6.9 NM

Knots	60	90	120	150	180
Min:Sec	6:54	4:36	3:27	2:46	2:18

SW-2, 14 JAN 2010 to 11 FEB 2010


ATIS
132.025
RAMONA TOWER ★
119.875
GND CON
121.65
RWY 9-27
S75, D95, DT170
VAR 12.7°E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1° W
TRANSIENT
PARKING
HANGARS
FBO
HANGARS
CONTROL
TOWER
33°02.5'N
A5
A
A4
9
ELEV
1386
087.3°
A3
A
A2
A
A1
5001 X 150
FIELD
ELEV
1395
27
267.3°
B
B
FBO MAINTENANCE
HANGARS
HANGAR
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
33°02.0'N
116°55.5'W
116°55.0'W
116°54.5'W

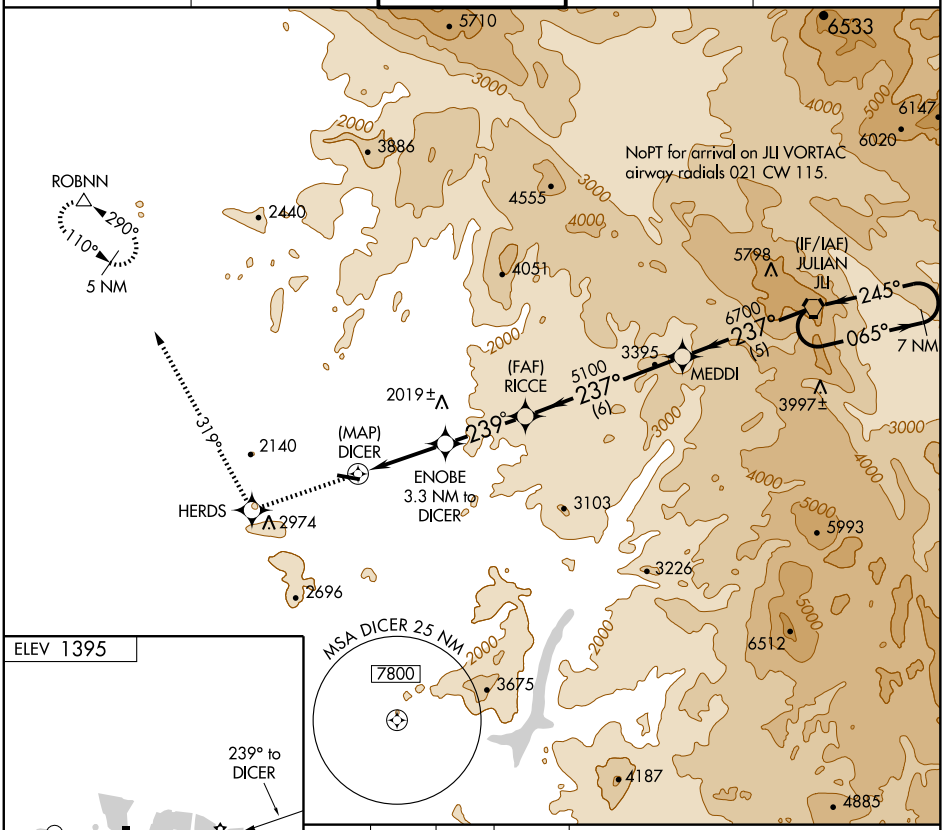
APP CRS	Rwy Idg	N/A
239°	TDZE	N/A
	Apt Elev	1395

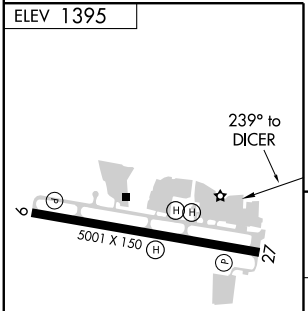
RNAV (GPS)-B
RAMONA (RNM)

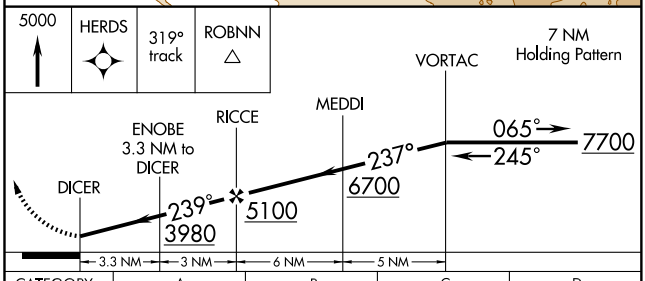
DME/DME RNP- 0.3 NA.
Circling NA north of Rwy 9-27.
When local altimeter setting not received, use Gillespie Field altimeter setting and increase all MDA 180 feet.

MISSED APPROACH: Climb to 5000 direct HERDS and via track 319° to ROBNN and hold.

ATIS	SOCAL APP CON	RAMONA TOWER★	GND CON	UNICOM
132.025	132.2 269.1	119.875 (CTAF) L	121.65	122.95







CATEGORY	A	B	C	D
CIRCLING	2780-1¼ 1385 (1400-1¼)	2780-1½ 1385 (1400-1½)	2780-3 1385 (1400-3)	NA

REIL Rwy 27 L
MIRL Rwy 9-27 L

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS		
088°	Rwy Idg	5001
	TDZE	1389
	Apt Elev	1395

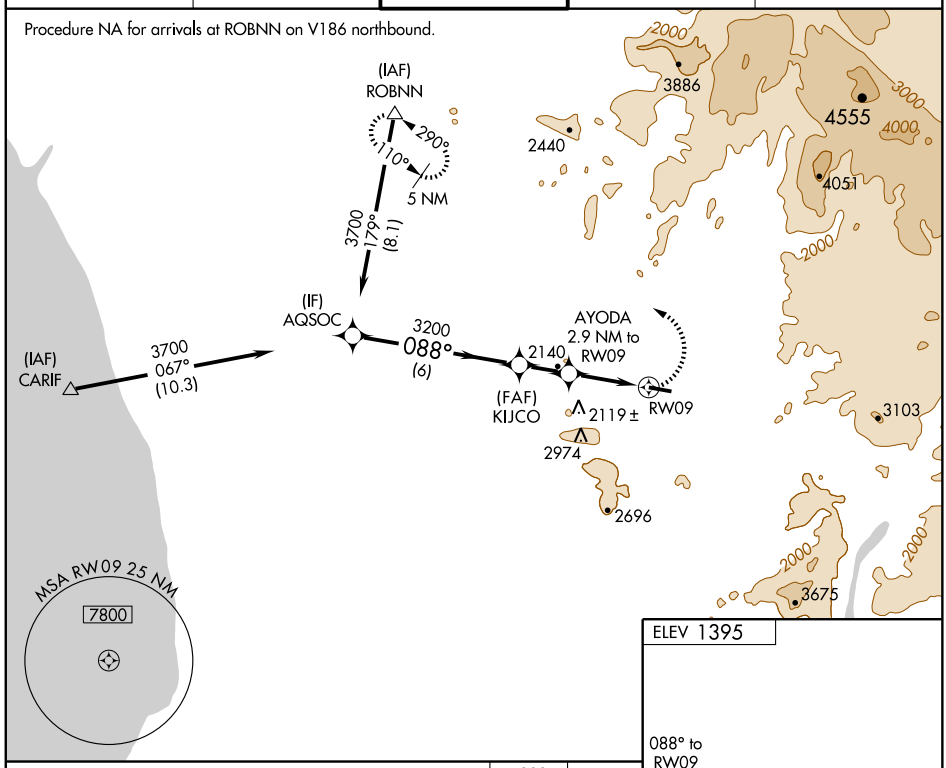
RNAV (GPS) RWY 9
RAMONA (RNM)

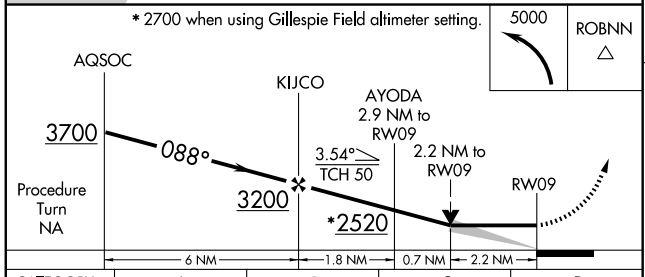
Circling NA north of Rwy 9-27. DME/DME RNP -0.3 NA.
LNAV minima NA when using Gillespie Field altimeter setting.
When local altimeter setting not received, use Gillespie Field altimeter setting and increase all circling MDA 180 feet and increase circling visibility Cats A and B ¼ mile and Cat C ½ mile.

MISSED APPROACH: Climbing left turn to 5000 direct ROBNN and hold.

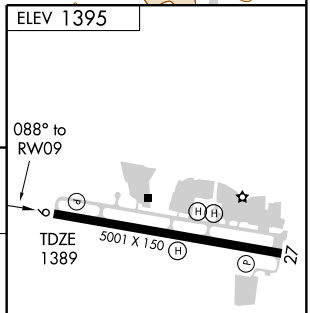
ATIS	SOCAL APP CON	RAMONA TOWER★	GND CON	UNICOM
132.025	132.2 269.1	119.875 (CTAF) L	121.65	122.95

Procedure NA for arrivals at ROBNN on V186 northbound.





CATEGORY	A	B	C	D
LNAV MDA	2240-1 851 (900-1)	2240-1¼ 851 (900-1¼)	2240-2½ 851 (900-2½)	NA
CIRCLING	2240-1 845 (900-1)	2240-1¼ 845 (900-1¼)	2240-2½ 845 (900-2½)	NA



REIL Rwy 27 L
MIRL Rwy 9-27 L

SW-3, 14 JAN 2010 to 11 FEB 2010

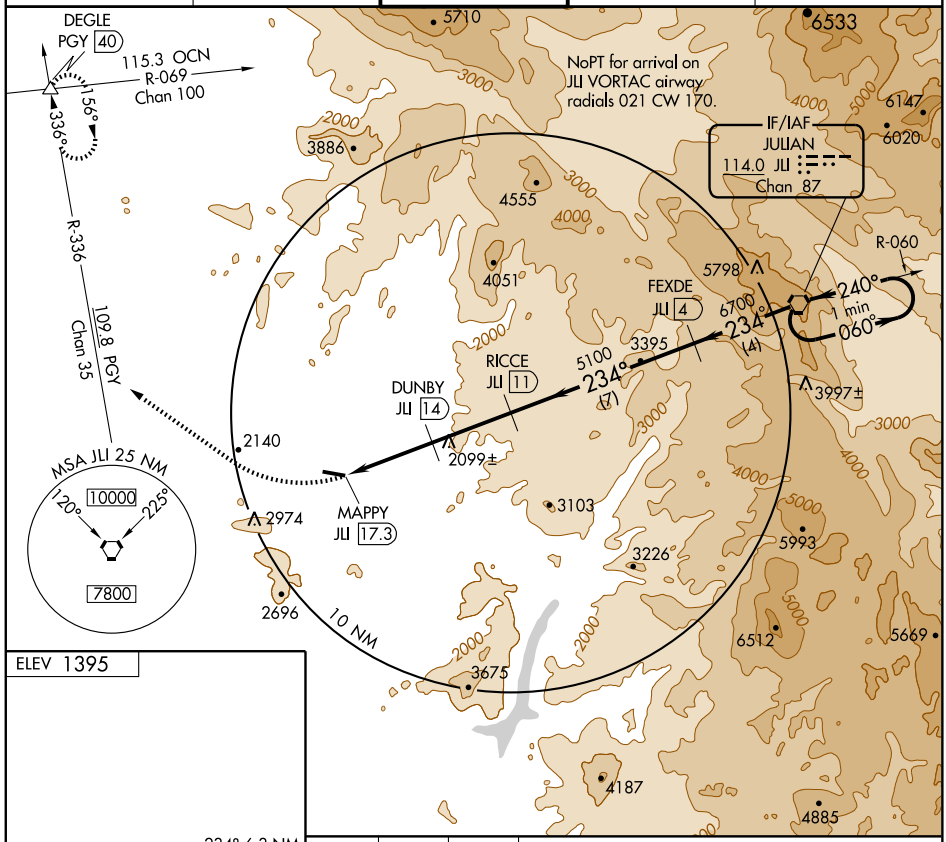
VORTAC JLI	APP CRS	Rwy Idg	N/A
114.0	234°	TDZE	N/A
Chan 87		Apt Elev	1395

VOR/DME-A
RAMONA (RNM)

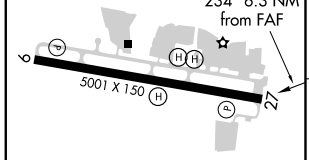
Circling NA north of Rwy 9-27.
When local altimeter setting not received, use Gillespie Field altimeter setting and increase all MDA 180 feet.

MISSED APPROACH: Climbing right turn to 5000 via heading 290° and PGY VORTAC R-336 to DEGLE/PGY 40 DME and hold.

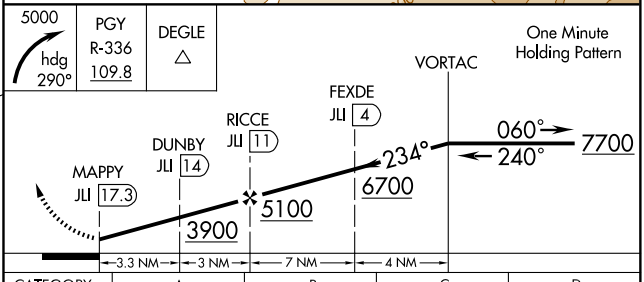
ATIS	SOCAL APP CON	RAMONA TOWER★	GND CON	UNICOM
132.025	132.2 269.1	119.875 (CTAF) L	121.65	122.95



ELEV 1395



5000	PGY	DEGLE
hdg 290°	R-336	△
	109.8	



CATEGORY	A	B	C	D
CIRCLING	2580-1¼ 1185 (1200-1¼)	2580-1½ 1185 (1200-1½)	2580-3 1185 (1200-3)	NA

REIL Rwy 27 L
MIRL Rwy 9-27 L

WAAS	APP CRS	Rwy Idg	5700
CH 73008	151°	TDZE	352
W15A		Apt Elev	352

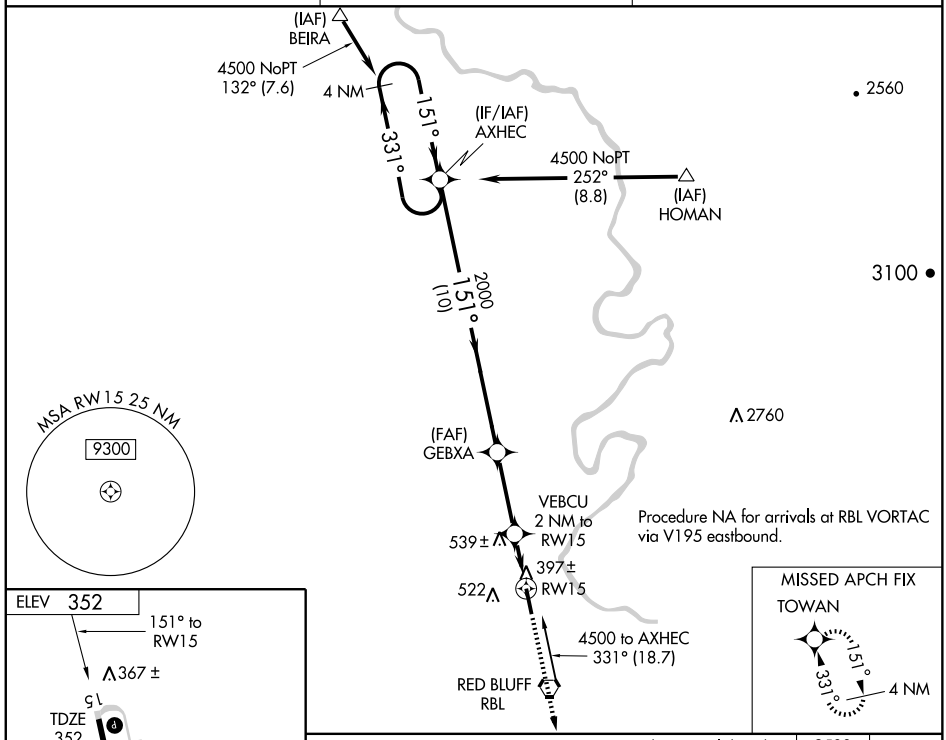
RNAV (GPS) RWY 15

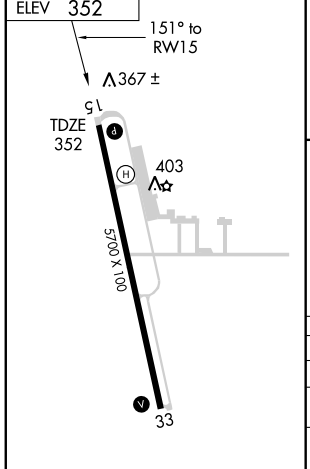
RED BLUFF MUNI (RBL)

Baro-VNAV NA when using Redding altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F).
DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received; use Redding altimeter setting and increase all DA/MDA 80 feet and increase LPV visibility ¼ mile all Cats, LNAV/ VNAV visibility ¼ mile all Cats, LNAV visibility ¼ mile Cat C and D.

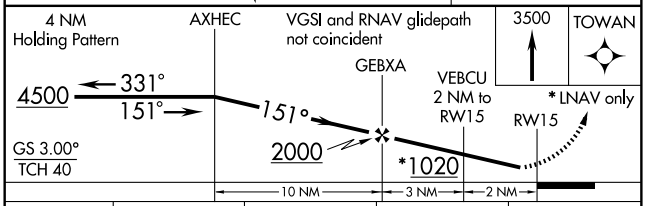
MISSED APPROACH: Climb to 3500 direct TOWAN and hold.

ASOS	OAKLAND CENTER	UNICOM
120.775	132.2 350.3	123.0 (CTAF) L





MIRL Rwy 15-33 L
REIL Rwys 15 and 33



CATEGORY	A	B	C	D
LPV DA	602-1 250 (300-1)			
LNAV/VNAV DA	789-1½ 437 (500-1½)			
LNAV MDA	820-1 468 (500-1)		820-1¼ 468 (500-1¼)	820-1½ 468 (500-1½)
CIRCLING	840-1 488 (500-1)		840-1½ 488 (500-1½)	920-2 568 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 42609 W33A	APP CRS 331°	Rwy Idg 5700 TDZE 352 Apt Elev 352

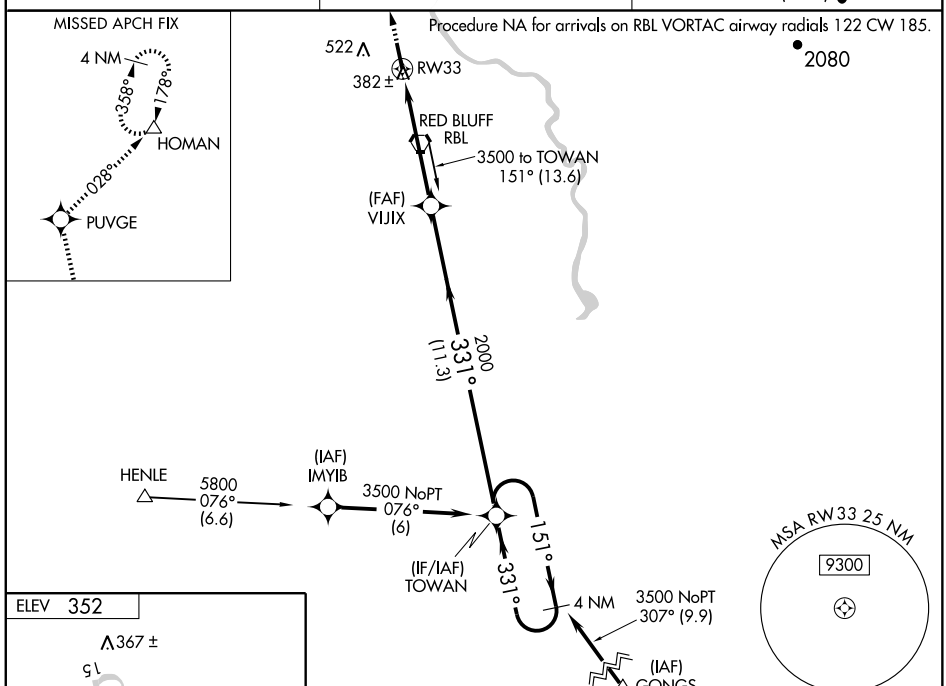
RNAV (GPS) RWY 33

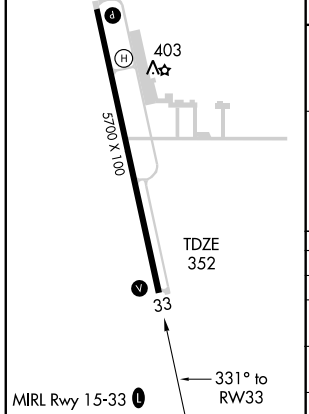
RED BLUFF MUNI (RBL)

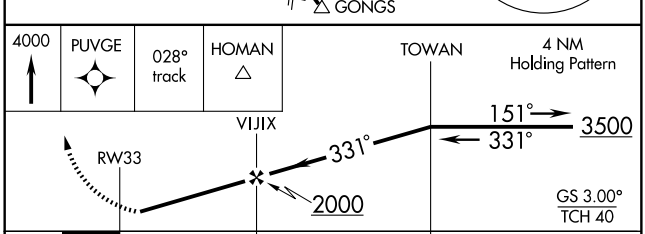
Baro-VNAV NA when using Redding altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F).
DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use Redding altimeter setting and increase all DA/MDA 80 feet and increase visibilities LPV ¼ mile all Cats, LNAV/VNAV ¼ mile all Cats, and LNAV Cat C visibility ¼ mile.

MISSED APPROACH: Climb to 4000 direct PUVGE and via 028° track to HOMAN and hold.

ASOS	OAKLAND CENTER	UNICOM
120.775	132.2 350.3	123.0 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	602-1 250 (300-1)			
LNAV/VNAV DA	718-1¼ 366 (400-1¼)			
LNAV MDA	780-1 428 (500-1)		780-1¼ 428 (500-1¼)	780-1½ 428 (500-1½)
CIRCLING	840-1 488 (500-1)		840-1½ 488 (500-1½)	920-2 568 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC RBL	APP CRS	Rwy Idg	5700
115.7	149°	TDZE	352
Chan 104		Apt Elev	352

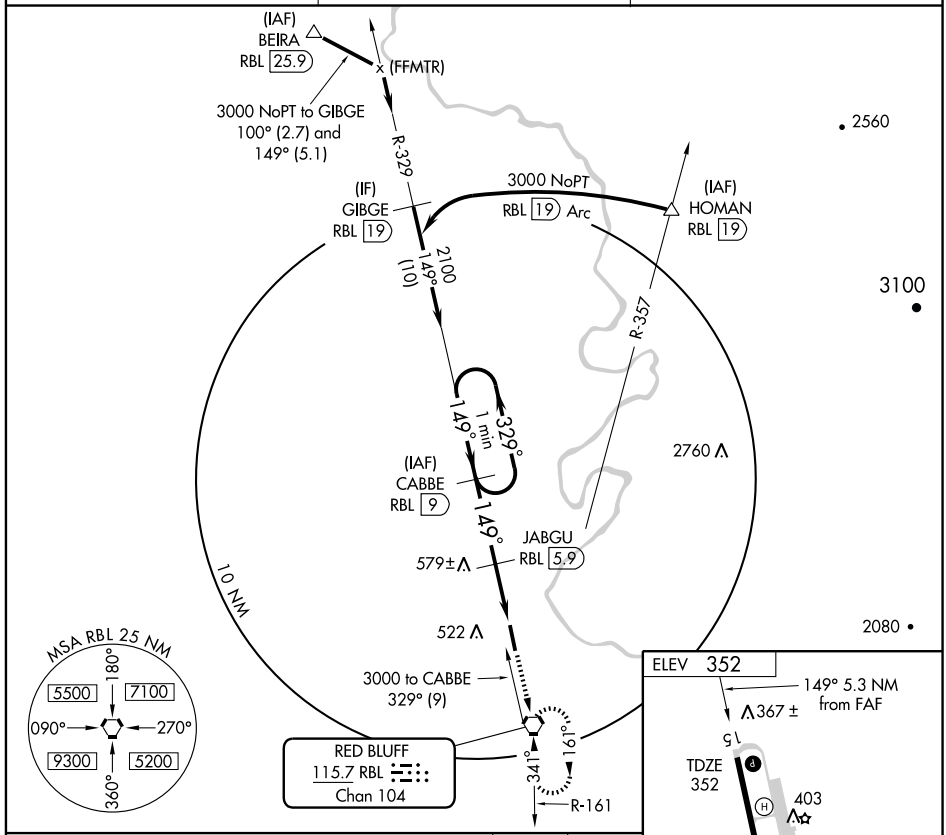
VOR/DME RWY 15

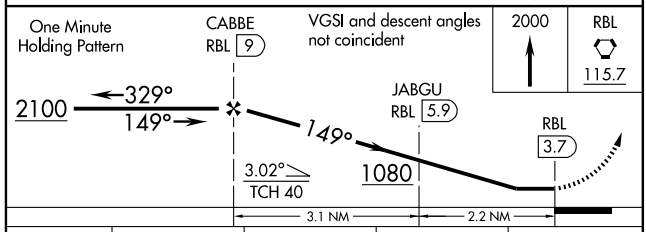
RED BLUFF MUNI (RBL)

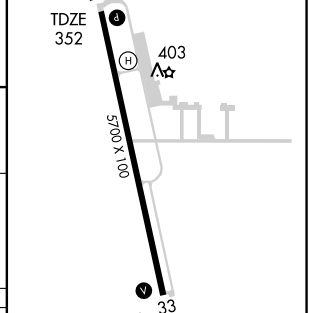
T A Visibility reduction by helicopters NA. When local altimeter setting not received, use Redding altimeter setting and increase all MDA 80 feet, and increase visibilities S-15 Cat C and D ¼ mile.

MISSED APPROACH: Climb to 2000 direct RBL VORTAC and hold.

ASOS	OAKLAND CENTER	UNICOM
120.775	132.2 350.3	123.0 (CTAF) L







CATEGORY	A	B	C	D
S-15	840-1	488 (500-1)	840-1¼ 488 (500-1¼)	840-1½ 488 (500-1½)
CIRCLING	840-1	488 (500-1)	840-1½ 488 (500-1½)	920-2 568 (600-2)

Knots	60	90	120	150	180
Min:Sec					

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC RBL 115.7 Chan 104	APP CRS 328°	Rwy Idg 5700 TDZE 352 Apt Elev 352

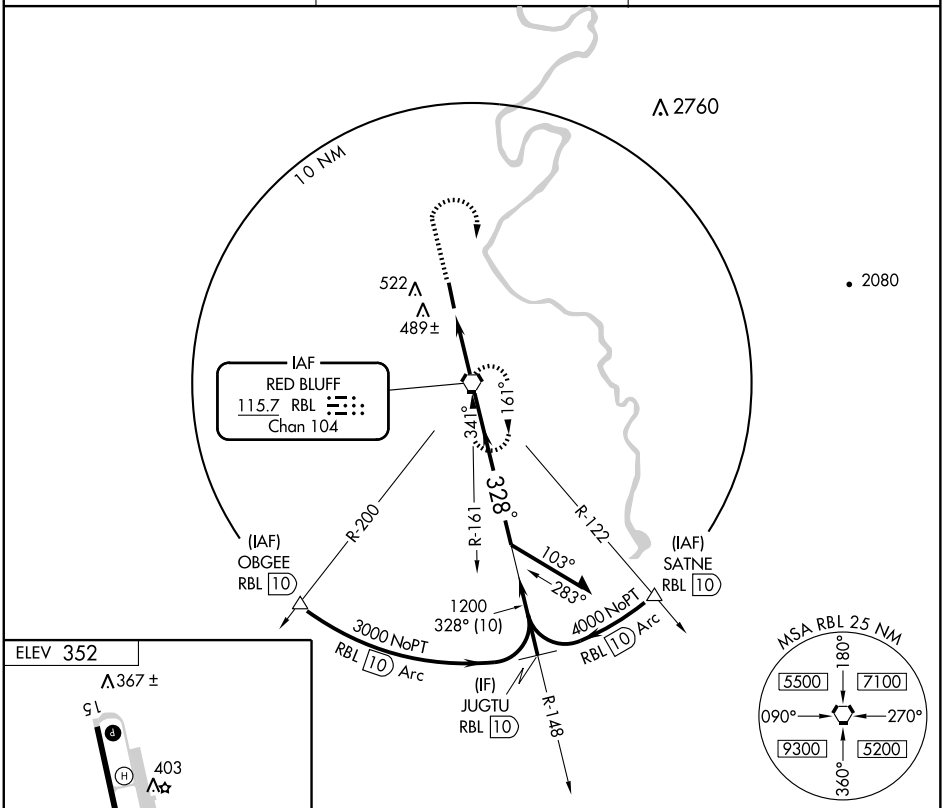
VOR RWY 33

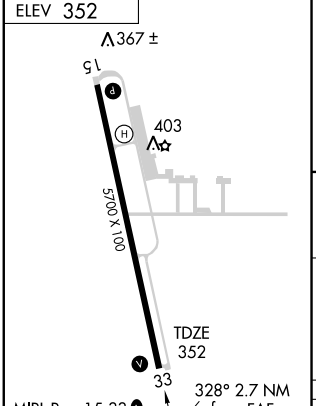
RED BLUFF MUNI (RBL)

Visibility reduction by helicopters NA.
When local altimeter setting not received, use Redding altimeter setting and increase all MDA 80 feet, and increase visibilities S-33 Cat C and D ¼ mile.

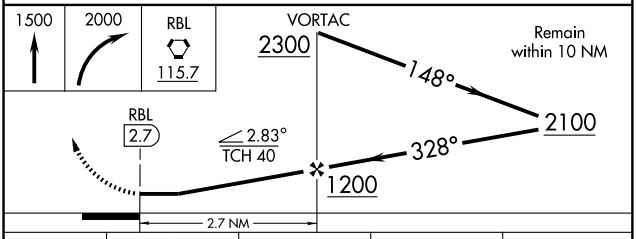
MISSED APPROACH: Climb to 1500, then climbing right turn to 2000 direct RBL VORTAC and hold.

ASOS	OAKLAND CENTER	UNICOM
120.775	132.2 350.3	123.0 (CTAF) L





FAF to MAP 2.7 NM					
Knots	60	90	120	150	180
Min:Sec	2:42	1:48	1:21	1:05	0:54



CATEGORY	A	B	C	D
S-33	740-1 388 (400-1)			740-1¼ 388 (400-1¼)
CIRCLING	840-1 488 (500-1)		840-1½ 488 (500-1½)	920-2 568 (600-2)

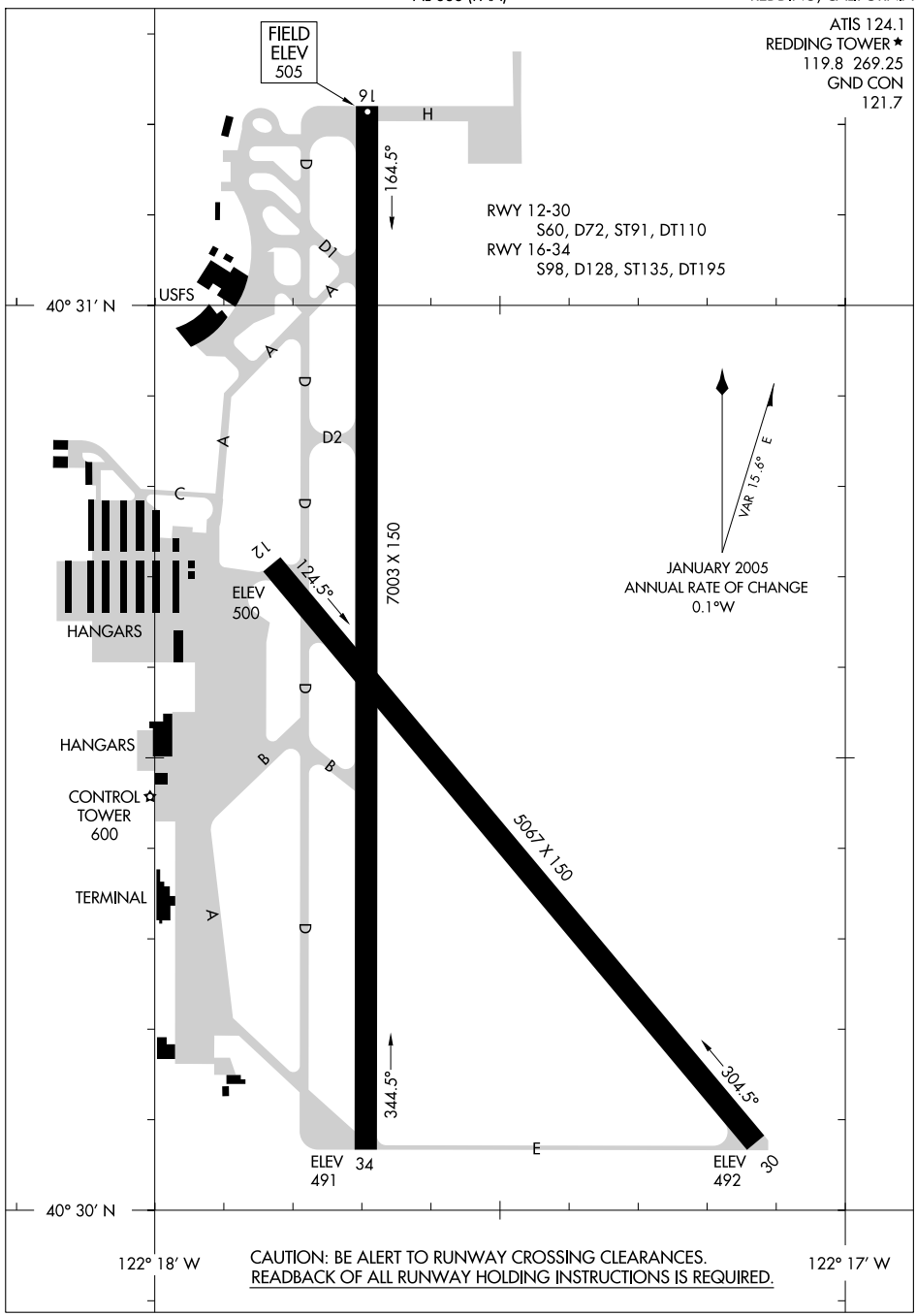
SW-2, 14 JAN 2010 to 11 FEB 2010

08325

AIRPORT DIAGRAM

AL-688 (FAA)

REDDING MUNI (RDD)
REDDING, CALIFORNIA



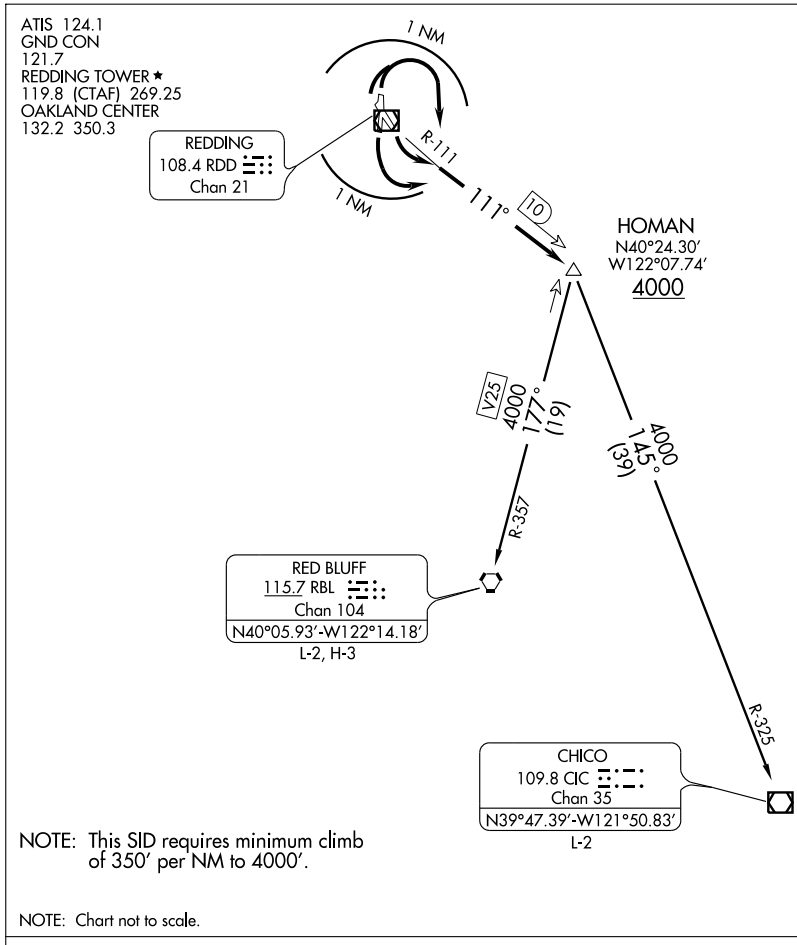
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

SW-2, 14 JAN 2010 to 11 FEB 2010

HOMAN TWO DEPARTURE

SL-688 (FAA)

REDDING MUNI (RDD)
REDDING, CALIFORNIA



NOTE: This SID requires minimum climb of 350' per NM to 4000'.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 12, 16: Turn left within 1 NM, thence....
TAKE-OFF RUNWAYS 30,34: Turn right within 1 NM, thence....

....Intercept the RDD R-111, direct HOMAN INT, cross HOMAN INT at or above 4000'; then via (transition) or (assigned route). Expect clearance to filed altitude 10 minutes after departure.

CHICO TRANSITION (HOMAN2.CIC): From over HOMAN INT via CIC R-325 to CIC VOR/DME.
RED BLUFF TRANSITION (HOMAN2.RBL): From over HOMAN INT via RBL R-357 to RBL VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-RDD	APP CRS	Rwy Idg	7003
108.7	342°	TDZE	499
Chan 24		Apt Elev	505

ILS or LOC/DME RWY 34

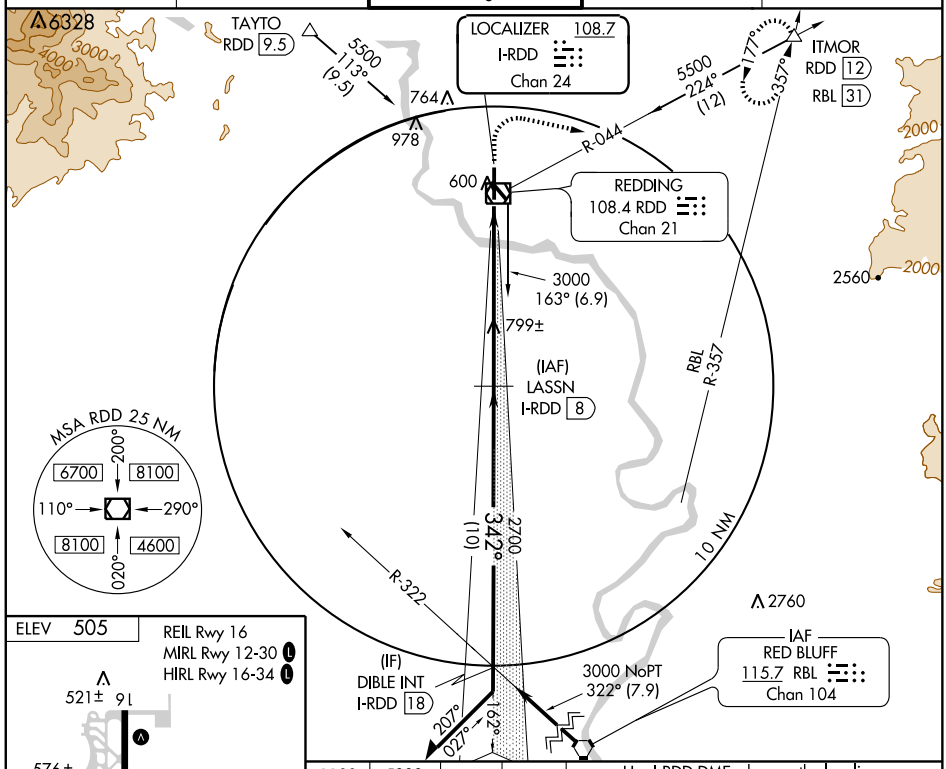
REDDING MUNI (RDD)

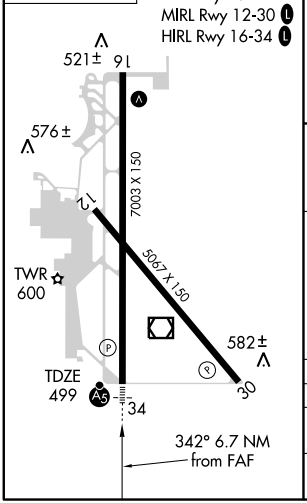
When local altimeter setting not received, use Red Bluff altimeter setting and increase all DAs/MDAs 80 feet, S-LOC 34 Cats. C, D, and E visibility ¼ mile, and Circling Cat. C and D visibility ¼ mile. VDP NA when using Red Bluff altimeter setting. For inoperative MALSR, increase S-ILS 34 Cat. E visibility to ¾ mile, S-LOC 34 Cat. E visibility to 2¼ mile. When using Red Bluff altimeter setting increase S-ILS 34 all Cats. visibility to 1 mile, and S-LOC 34 Cat. E visibility to 2½ mile.

MALSR

MISSED APPROACH: Climb to 1100 then climbing right turn to 5000 via heading 090° and RDD R-044 to ITMOR INT/RDD 12 DME and hold, continue climb-in-hold to 5000.

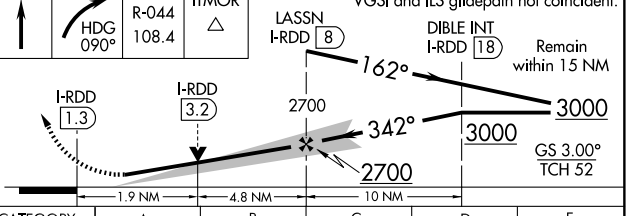
ATIS	OAKLAND CENTER	REDDING TOWER ★	GND CON	UNICOM
124.1	132.2 350.3	119.8 (CTAF) L 269.25	121.7	122.95





1100	5000 HDG 090°	RDD R-044 108.4	ITMOR △

Use I-RDD DME when on the localizer course. VGSI and ILS glidepath not coincident.



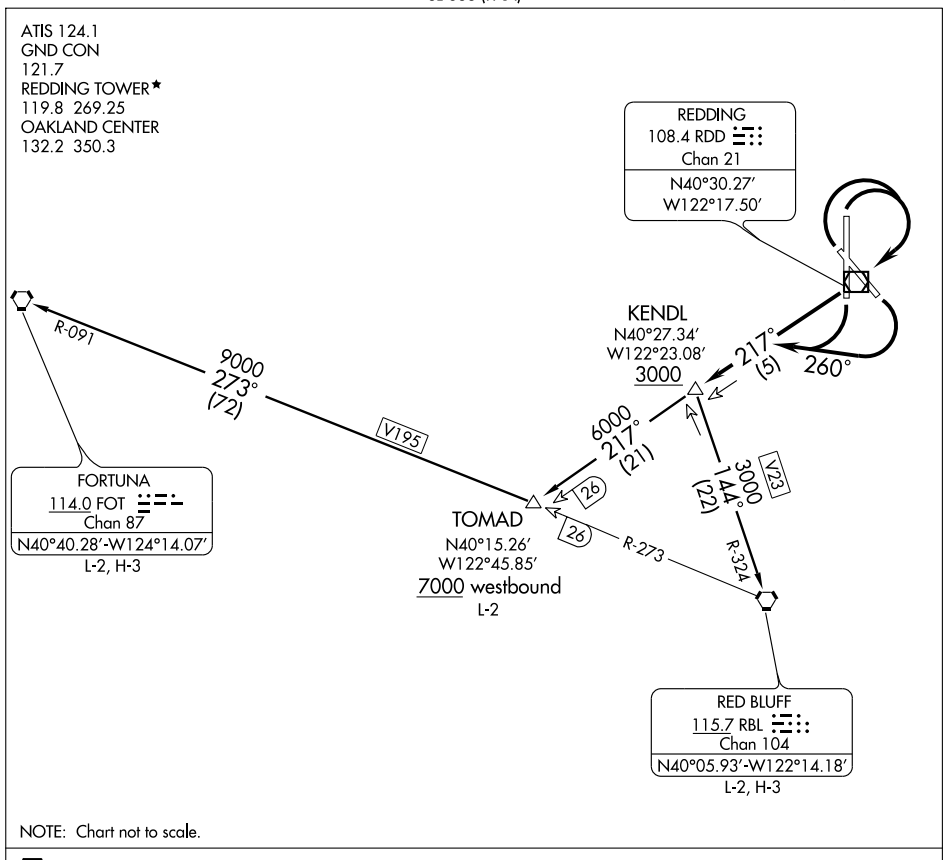
CATEGORY	A	B	C	D	E
S-ILS 34	699-½ 200 (200-½)				
S-LOC 34	1140-½ 641 (700-½)		1140-1¼ 641 (700-1¼)	1140-1½ 641 (700-1½)	1140-1¾ 641 (700-1¾)
CIRCLING	1140-1 635 (700-1)		1140-1¾ 635 (700-1¾)	1140-2 635 (700-2)	1340-3 835 (900-3)

SW-2, 14 JAN 2010 to 11 FEB 2010

KENDL ONE DEPARTURE

SL-688 (FAA)

REDDING MUNI (RDD)
REDDING, CALIFORNIA



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 12 and 16: Cats. A and B: turn right heading 260° to intercept and proceed via the RDD R-217 to KENDL INT. Cross KENDL INT at or above 3000, thence via (transition) or (assigned route). Cats. C and D: not authorized.
TAKE-OFF RUNWAYS 30 and 34: Turn right to cross RDD VOR/DME and proceed via the RDD R-217 to KENDL INT. Cross KENDL INT at or above 3000 thence via (transition) or (assigned route).

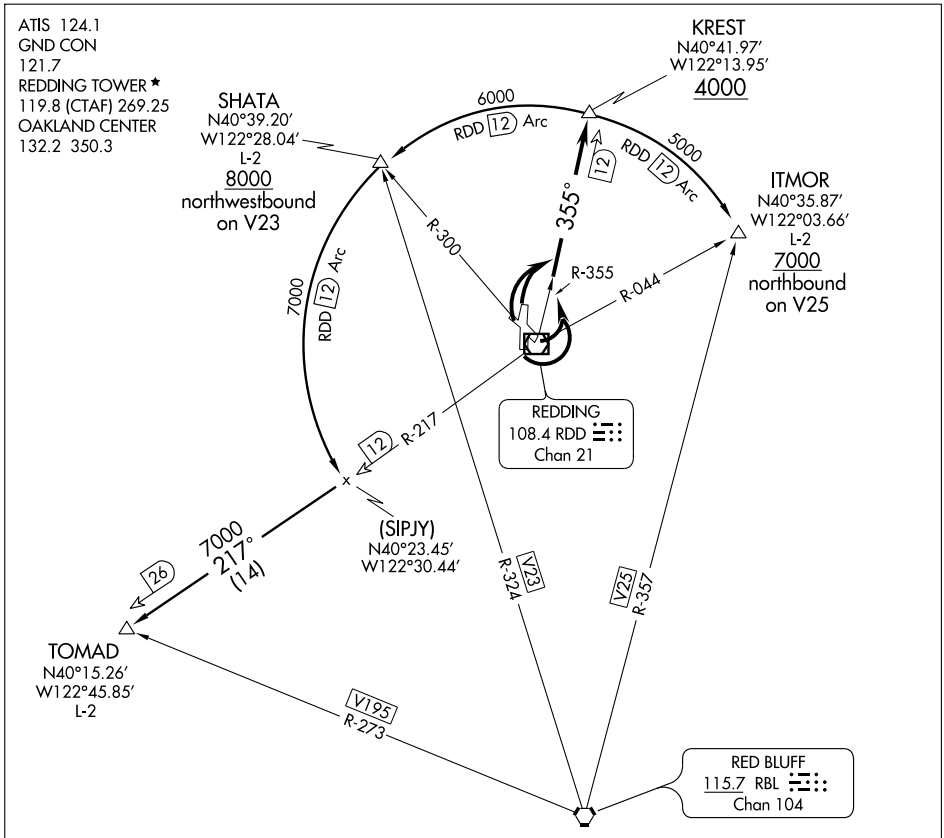
FORTUNA TRANSITION (KENDL1.FOT): From over KENDL INT via RDD R-217 to TOMAD INT, thence via RBL R-273 and FOT R-091 to FOT VORTAC.
RED BLUFF TRANSITION (KENDL1.RBL): From over KENDL INT via RBL R-324 to RBL VORTAC.
TOMAD TRANSITION (KENDL1.TOMAD): From over KENDL INT via RDD R-217 to TOMAD INT.

SW-2, 14 JAN 2010 to 11 FEB 2010

KREST THREE DEPARTURE

SL-688 (FAA)

REDDING MUNI (RDD)
REDDING, CALIFORNIA



NOTE: Rwys 12, 16 and 30 departures require minimum climb of 300′ per NM to 4000′.
NOTE: Rwy 34 departure requires minimum climb of 320′ per NM to 4000′.
NOTE: DME required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 12 and 16: Turn left immediately after departure to intercept and proceed via the RDD R-355 to KREST DME Fix. Cross KREST DME Fix at or above 4000, thence via (transition) or (assigned route).
TAKE-OFF RUNWAYS 30 and 34: Turn right immediately after departure to intercept and proceed via RDD R-355 to KREST DME Fix. Cross KREST DME Fix at or above 4000, thence via (transition) or (assigned route).

ITMOR TRANSITION (KREST3.ITMOR): From over KREST DME Fix via RDD 12 DME Arc clockwise to ITMOR INT.
SHATA TRANSITION (KREST3.SHATA): From over KREST DME Fix via RDD 12 DME Arc counterclockwise to SHATA INT.
TOMAD TRANSITION (KREST3.TOMAD): From over KREST DME Fix via RDD 12 DME Arc counterclockwise to RDD R-217, thence via RDD R-217 to TOMAD INT.

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-RDD	APP CRS	Rwy Idg	7003
108.7	162°	TDZE	505
Chan 24		Apt Elev	505

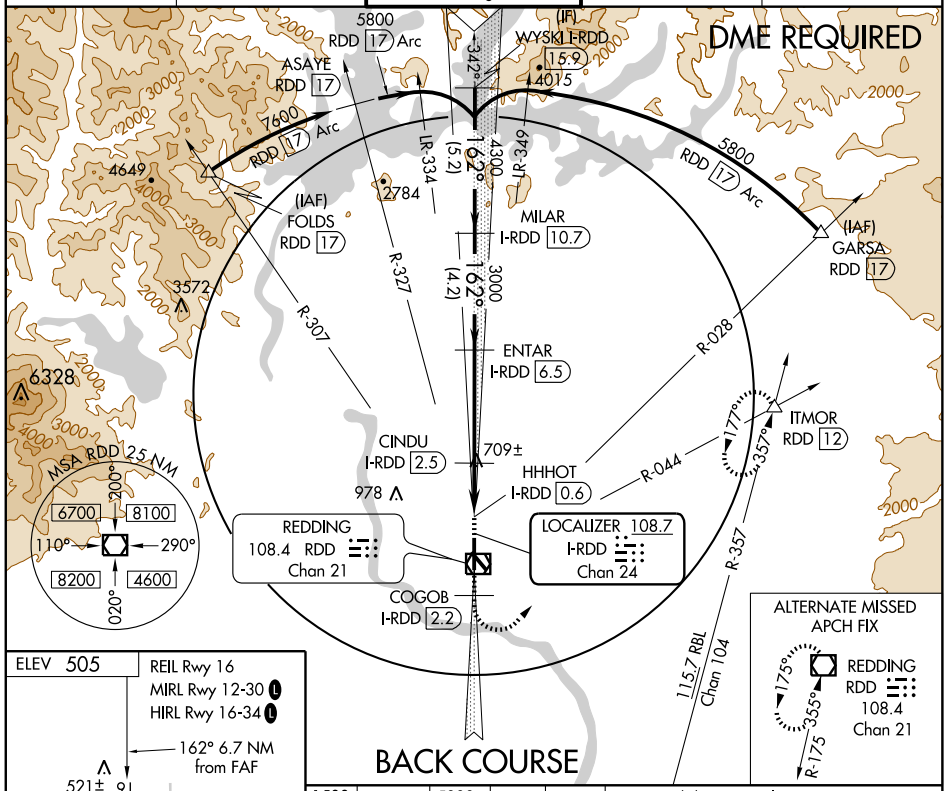
LOC/DME BC RWY 16

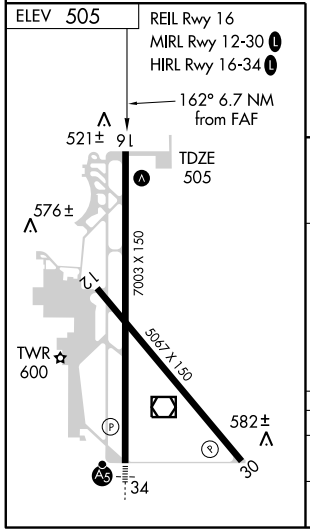
REDDING MUNI (RDD)

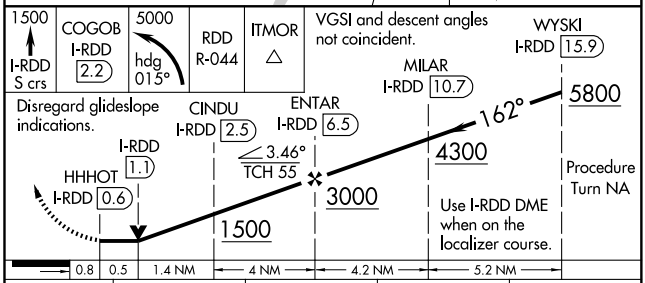
Visibility reduction by helicopters NA. When local altimeter setting not received, use Red Bluff altimeter setting and increase all MDA 80 feet and S-16 Cats. C/D visibilities ¼ mile.

MISSED APPROACH: Climb to 1500 via I-RDD S course to COGOB/I-RDD 2.2 DME then climbing left turn to 5000 via heading 015° and RDD R-044 to ITMOR INT/RDD 12 DME and hold, continue climb-in-hold to 5000.

ATIS	OAKLAND CENTER	REDDING TOWER ★	GND CON	UNICOM
124.1	132.2 350.3	119.8 (CTAF) 269.25	121.7	122.95







CATEGORY	A	B	C	D
S-16	940-1 435 (500-1)		940-1¼ 435 (500-1¼)	940-1½ 435 (500-1½)
CIRCLING	960-1 455 (500-1)		980-1½ 475 (500-1½)	1060-2 555 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 56402 W34A	APP CRS 342°	Rwy Idg 7003 TDZE 499 Apt Elev 505

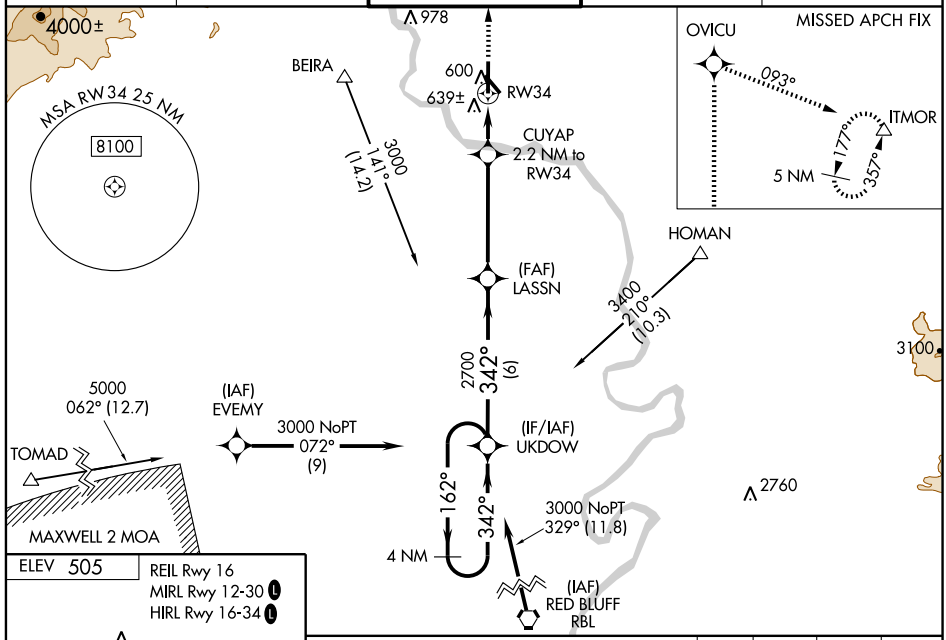
RNAV (GPS) RWY 34
REDDING MUNI (RDD)

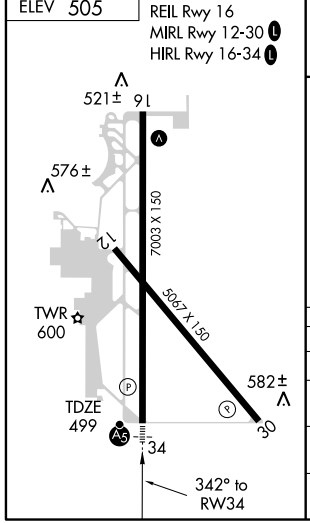
DME/DME RNP-0.3 NA. Circling to Rwy 12 NA at night. For inoperative MALSR, increase LPV all Cats. visibility to 1 mile. When using Red Bluff altimeter setting increase LPV all Cats. visibility to 1¼ mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C(4°F) or above 48°C (118°F). VDP and Baro-VNAV NA when using Red Bluff altimeter setting. When local altimeter setting not received, use Red Bluff altimeter setting and increase all DAs/MDAs 80 feet, and increase LPV visibility ¼ mile all Cats., LNAV/VNAV visibility ¼ mile all Cats., and LNAV visibility Cat. C/D ¼ mile.

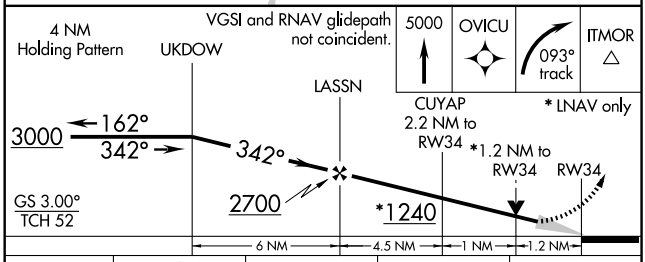
MALSR

MISSED APPROACH: Climb to 5000 direct OVICU and right turn via 093° track to ITMOR and hold, continue climb-in-hold to 5000.

ATIS	OAKLAND CENTER	REDDING TOWER ★	GND CON	UNICOM
124.1	132.2 350.3	119.8 (CTAF) L 269.25	121.7	122.95







CATEGORY	A	B	C	D
LPV DA	790-½ 291 (300-½)			
LNAV/VNAV DA	944-1 445 (500-1)			
LNAV MDA	940-½ 441 (500-½)		940-¾ 441 (500-¾)	940-1 441 (500-1)
CIRCLING	1000-1 495 (500-1)		1000-1½ 495 (500-1½)	1060-2 555 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME RDD	APP CRS	Rwy Idg	7003
108.4	355°	TDZE	496
Chan 21		Apt Elev	502

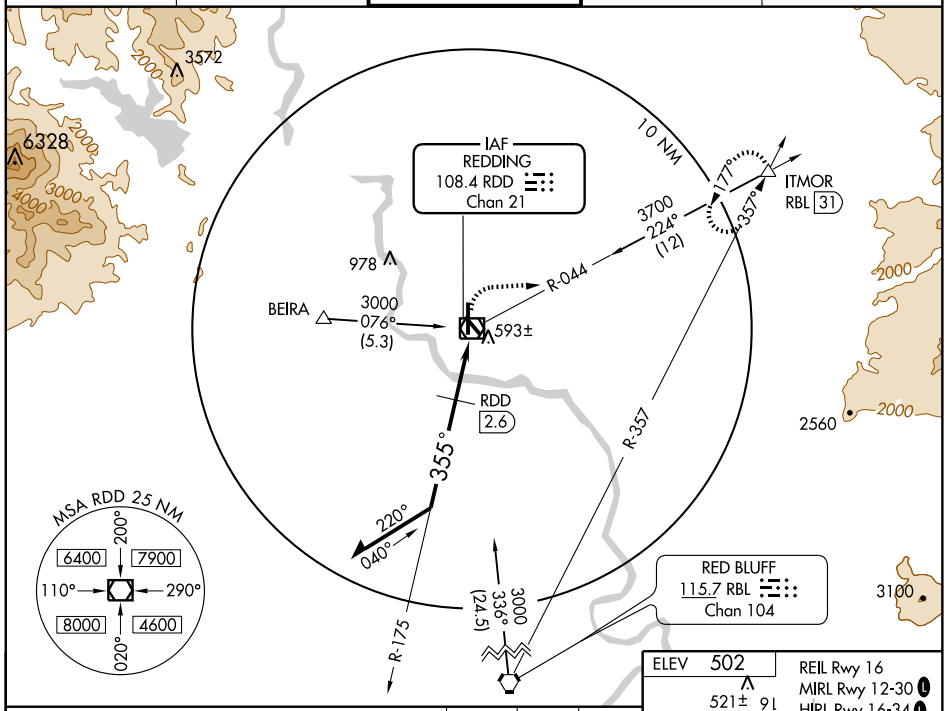
VOR RWY 34
REDDING MUNI (RDD)

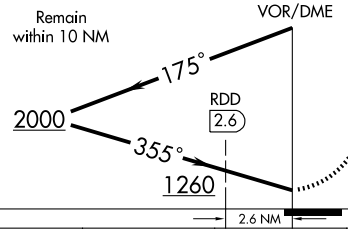
Cat. D S-34 DME minimums visibility increased ¼ mile for inoperative MALSR.

MALSR

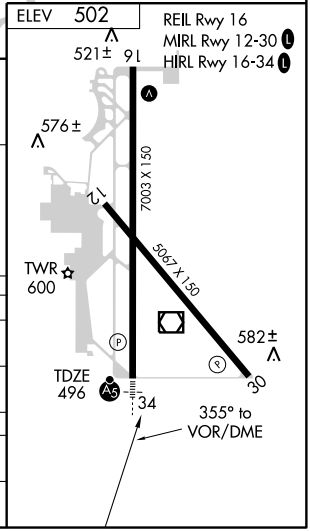
MISSED APPROACH: Climbing right turn to 5300 via heading 090° and RDD R-044 to ITMOR INT and hold.

ATIS	OAKLAND CENTER	REDDING TOWER ★	GND CON	UNICOM
124.1	132.2 350.3	119.8 (CTAF) L 269.25	121.7	122.95





5300	RDD	ITMOR
090°	R-044	△
	108.4	



CATEGORY	A	B	C	D
S-34	1260-½ 764 (800-½)	1260-¾ 764 (800-¾)	1260-1¾ 764 (800-1¾)	1260-2 764 (800-2)
CIRCLING	1260-1 758 (800-1)	1260-1¼ 758 (800-1¼)	1260-2¼ 758 (800-2¼)	1260-2½ 758 (800-2½)
DME MINIMUMS				
S-34	860-½ 364 (400-½)			860-1 364 (400-1)
CIRCLING	920-1 418 (500-1)	960-1 458 (500-1)	960-1½ 458 (500-1½)	1060-2 558 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

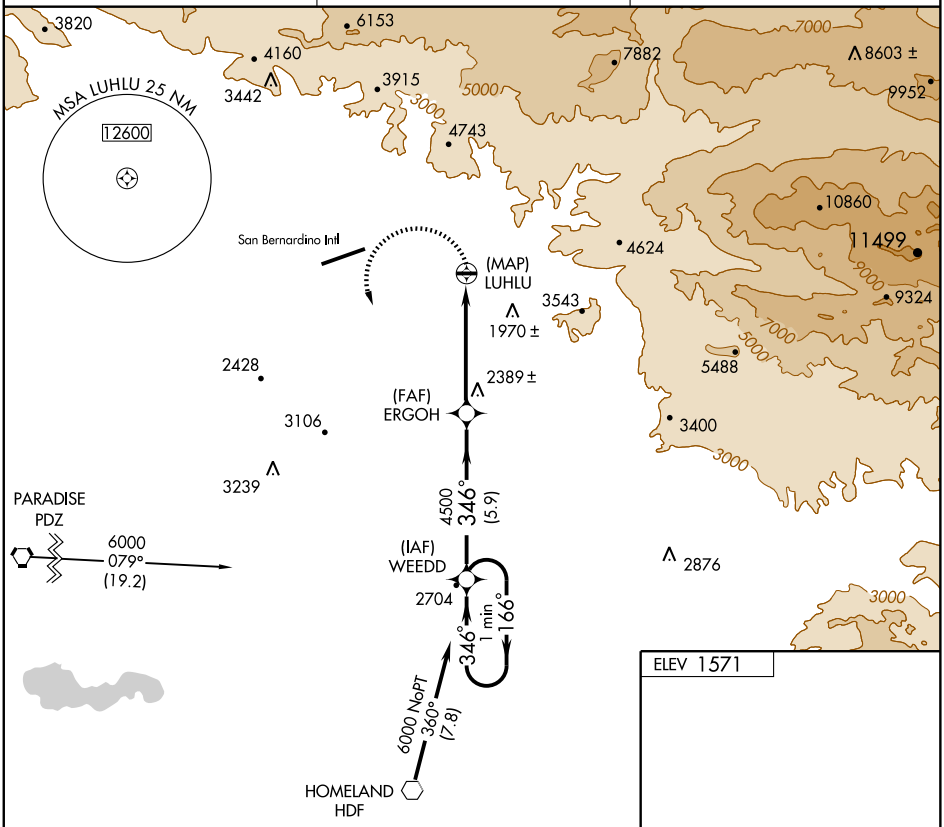
APP CRS	Rwy Idg	N/A
346°	TDZE	N/A
	Apt Elev	1571

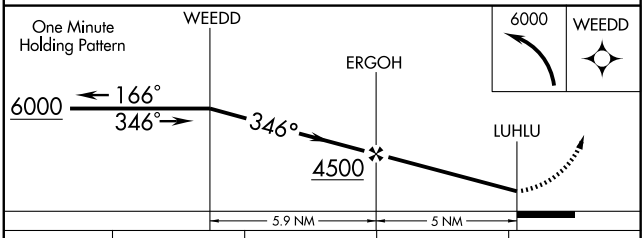
GPS-A
REDLANDS MUNI (REI)

Use San Bernardino Intl altimeter setting; when not received, use Ontario Intl altimeter setting and increase all MDAs 160 feet. Procedure not authorized at night.

MISSED APPROACH: Climbing left turn to 6000 direct WEEDD WP and hold.

AWOS-3	SOCAL APP CON	UNICOM
123.050	127.25 318.2	123.05 (CTAF) L





CATEGORY	A	B	C	D
CIRCLING	2640-1¼ 1069 (1100-1¼)	2640-1½ 1069 (1100-1½)	2640-3 1069 (1100-3)	NA

SW-3, 14 JAN 2010 to 11 FEB 2010

NDB SB	APP CRS	Rwy Idg	N/A
397	323°	TDZE	N/A
		Apt Elev	1455

NDB or GPS-A

RIALTO MUNI (MIRO FIELD) (L67)

Use Ontario Intl altimeter setting.

MISSED APPROACH: Climbing left turn to 4500 via heading 230° and POM R-073 to POM VORTAC and hold.

SOCAL APP CON	UNICOM
127.25 318.2	122.8 (CTAF)

POMONA
110.4 POM
Chan 41

R-073
292°
112°
R-112

MSA SB 25 NM
190°
11100
12500
090°
280°
6800

PETIS
397 SB

(MAPRK)
1539±
323°
3200
(3.9)
FAALT INT
R-049
10 NM
323°
3800
(5.8)
R-078
(IAF)
EDITS

PARADISE
112.2 PDZ
Chan 59

143°
R-313
113.4 HDF

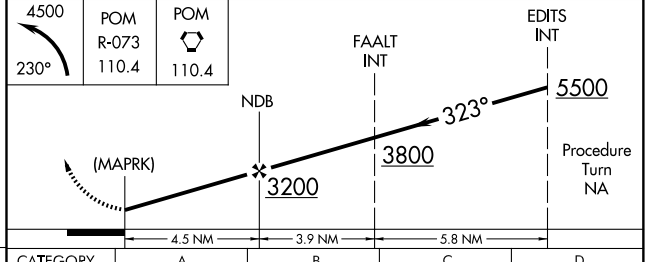
ELEV 1455

4500 X 100
0.5% UP
2650 X 50
1.6% UP
24
6
35
1470±
1478

323° 4.5 NM from FAF

REIL Rwys 6 and 24
MIRL Rwys 6-24 and 17-35 (L)

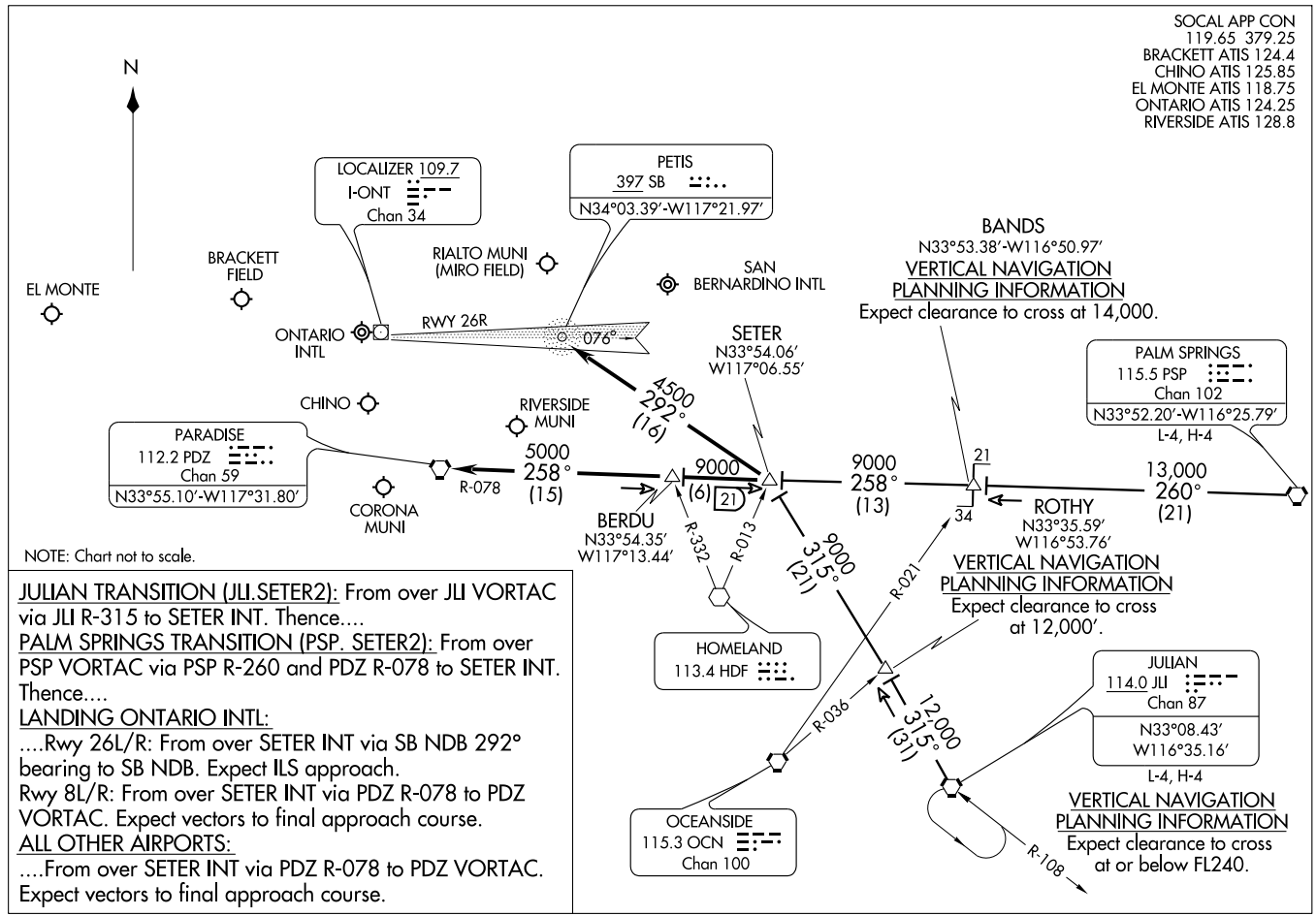
4500	POM	POM
230°	R-073	
	110.4	110.4



FAF to MAP 4.5 NM					
Knots	60	90	120	150	180
Min:Sec	4:30	3:00	2:15	1:48	1:30

CATEGORY	A	B	C	D
CIRCLING	2080-1 625 (700-1)	2120-1 665 (700-1)	2160-2 705 (800-2)	NA

SW-3, 14 JAN 2010 to 11 FEB 2010



NOTE: Chart not to scale.

JULIAN TRANSITION (JLI.SETER2): From over JLI VORTAC via JLI R-315 to SETER INT. Thence....

PALM SPRINGS TRANSITION (PSP. SETER2): From over PSP VORTAC via PSP R-260 and PDZ R-078 to SETER INT. Thence....

LANDING ONTARIO INTL:

....Rwy 26L/R: From over SETER INT via SB NDB 292° bearing to SB NDB. Expect ILS approach.

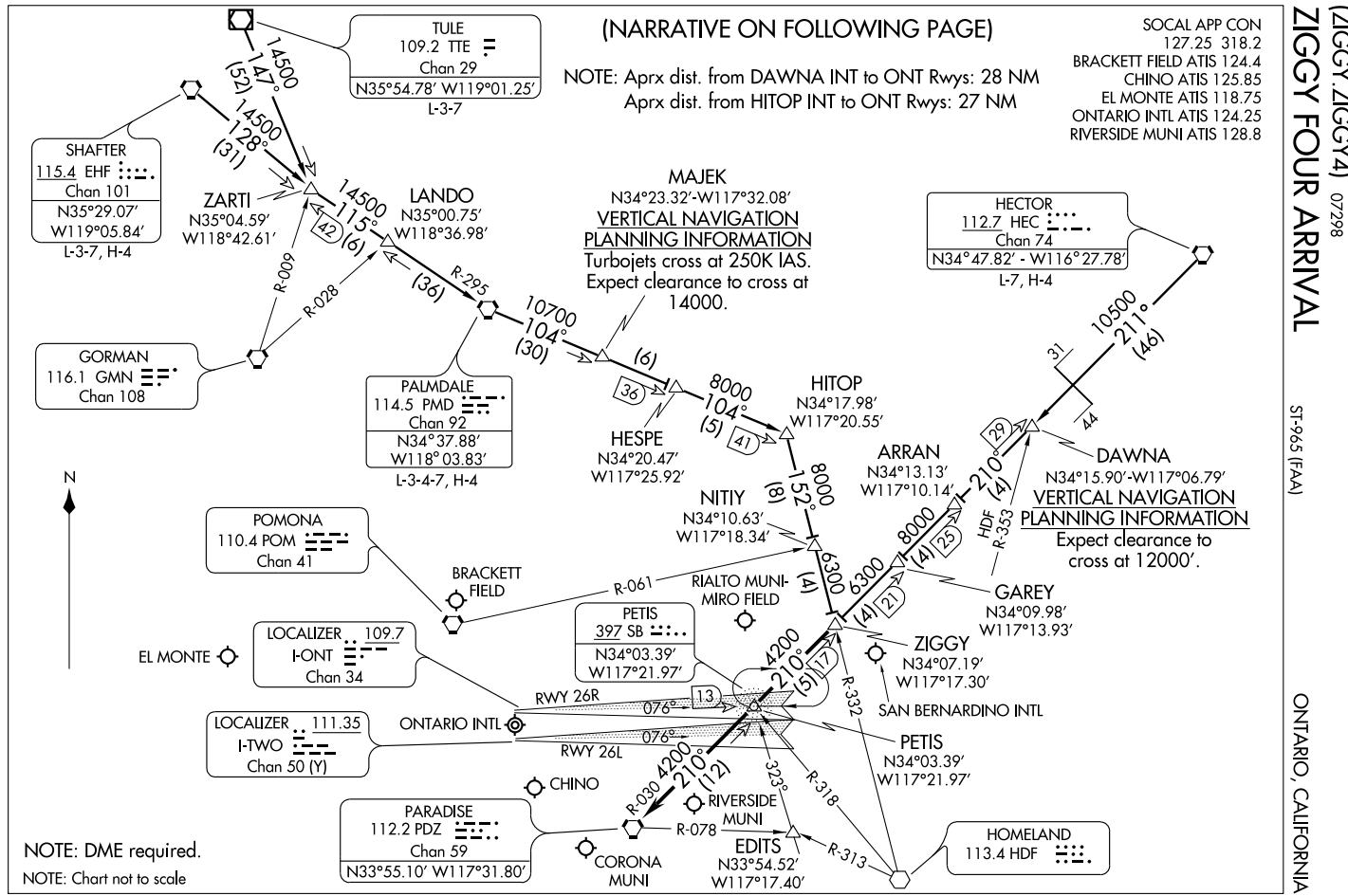
Rwy 8L/R: From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ALL OTHER AIRPORTS:

....From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ST-965 (FAA)

ONTARIO, CALIFORNIA


(NARRATIVE ON FOLLOWING PAGE)
NOTE: Aprx dist. from DAWNA INT to ONT Rwys: 28 NM
Aprx dist. from HITOP INT to ONT Rwys: 27 NM
SOCAL APP CON
127.25 318.2
BRACKETT FIELD ATIS 124.4
CHINO ATIS 125.85
EL MONTE ATIS 118.75
ONTARIO INTL ATIS 124.25
RIVERSIDE MUNI ATIS 128.8
ZIGGY FOUR ARRIVAL
(ZIGGY.ZIGGY4) 07298
ST-965 (FAA)
ONTARIO, CALIFORNIA
TULE
109.2 TTE
Chan 29
N35°54.78' W119°01.25'
L-3-7
SHAFTER
115.4 EHF
Chan 101
N35°29.07'
W119°05.84'
L-3-7, H-4
ZARTI
N35°04.59'
W118°42.61'
LANDO
N35°00.75'
W118°36.98'
MAJEK
N34°23.32'-W117°32.08'
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojets cross at 250K IAS.
Expect clearance to cross at
14000.
HECTOR
112.7 HEC
Chan 74
N34°47.82' - W116°27.78'
L-7, H-4
GORMAN
116.1 GMN
Chan 108
PALMDALE
114.5 PMD
Chan 92
N34°37.88'
W118°03.83'
L-3-4-7, H-4
HESPE
N34°20.47'
W117°25.92'
HITOP
N34°17.98'
W117°20.55'
ARRAN
N34°13.13'
W117°10.14'
DAWNA
N34°15.90'-W117°06.79'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance to
cross at 12000'.
NITIY
N34°10.63'
W117°18.34'
POMONA
110.4 POM
Chan 41
BRACKETT
FIELD
RIALTO MUNI-
MIRO FIELD
GAREY
N34°09.98'
W117°13.93'
PETIS
397 SB
N34°03.39'
W117°21.97'
ZIGGY
N34°07.19'
W117°17.30'
EL MONTE
LOCALIZER 109.7
I-ONT
Chan 34
SAN BERNARDINO INTL
RWY 26R
RWY 26L
ONTARIO INTL
LOCALIZER 111.35
I-TWO
Chan 50 (Y)
PETIS
N34°03.39'
W117°21.97'
CHINO
PARADISE
112.2 PDZ
Chan 59
N33°55.10' W117°31.80'
RIVERSIDE
MUNI
CORONA
MUNI
EDITS
N33°54.52'
W117°17.40'
HOMELAND
113.4 HDF
NOTE: DME required.
NOTE: Chart not to scale
N

ZIGGY FOUR ARRIVAL

ARRIVAL ROUTE DESCRIPTION

HECTOR TRANSITION (HEC.ZIGGY4): From over HEC VORTAC via HEC R-211 and PDZ R-030 to ZIGGY INT. Thence . . . .

PALMDALE TRANSITION (PMD.ZIGGY4): From over PMD VORTAC via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

SHAFTER TRANSITION (EHF.ZIGGY4): From over EHF VORTAC via EHF R-128 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

TULE TRANSITION (TTE.ZIGGY4): From over TTE VOR/DME via TTE R-147 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

LANDING ONTARIO INTL:

. . . . RWY 8L/R: From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

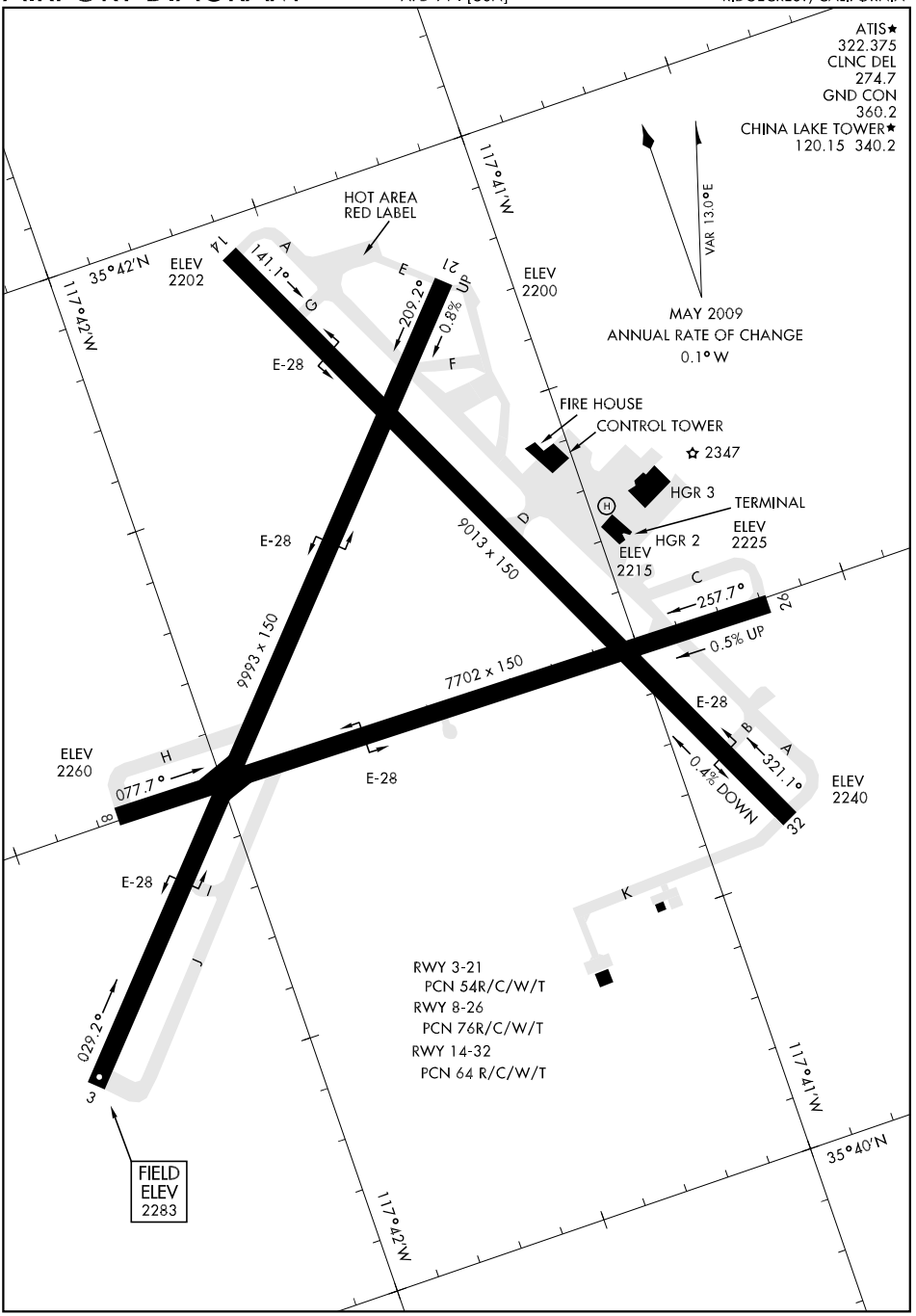
. . . . RWY 26 L/R: From over ZIGGY INT via direct PETIS NDB or PDZ R-030 to PETIS INT; expect radar vectors for ILS approach.

ALL OTHER AIRPORTS:

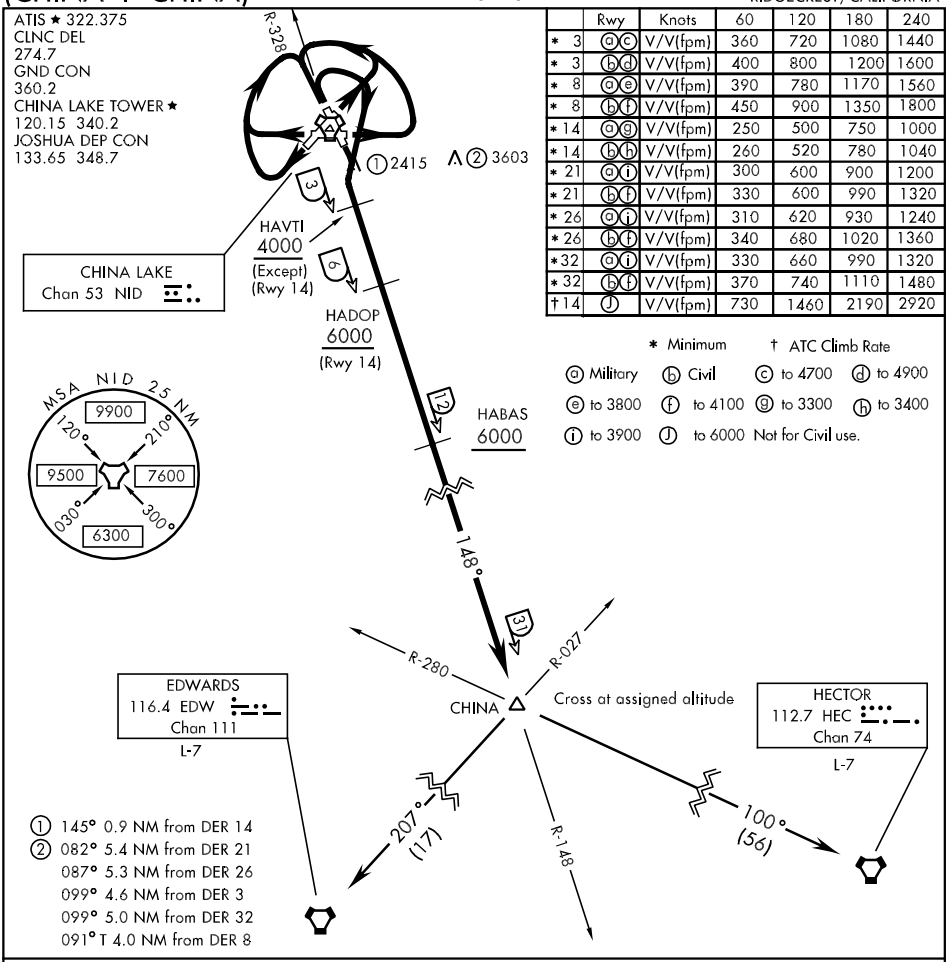
. . . . From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

LOST COMMUNICATIONS: For Rialto, California, NDB-A approach, proceed from PDZ VORTAC via PDZ R-078 to EDITS INT, maintain 4200'.

SW-3, 14 JAN 2010 to 11 FEB 2010



SW-3, 14 JAN 2010 to 11 FEB 2010



	Rwy	Knots	60	120	180	240
*	3 (a)(c)	V/V(fpm)	360	720	1080	1440
*	3 (b)(d)	V/V(fpm)	400	800	1200	1600
*	8 (a)(e)	V/V(fpm)	390	780	1170	1560
*	8 (b)(f)	V/V(fpm)	450	900	1350	1800
*	14 (a)(g)	V/V(fpm)	250	500	750	1000
*	14 (b)(h)	V/V(fpm)	260	520	780	1040
*	21 (a)(i)	V/V(fpm)	300	600	900	1200
*	21 (b)(f)	V/V(fpm)	330	600	990	1320
*	26 (a)(i)	V/V(fpm)	310	620	930	1240
*	26 (b)(f)	V/V(fpm)	340	680	1020	1360
*	32 (a)(i)	V/V(fpm)	330	660	990	1320
*	32 (b)(f)	V/V(fpm)	370	740	1110	1480
†	14 (J)	V/V(fpm)	730	1460	2190	2920

* Minimum † ATC Climb Rate
(a) Military (b) Civil (c) to 4700 (d) to 4900
(e) to 3800 (f) to 4100 (g) to 3300 (h) to 3400
(i) to 3900 (J) to 6000 Not for Civil use.

SW-3, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3: Climb to 2700 via heading 029°, then climbing left turn within 4 DME to intercept R-328 direct NID TACAN and proceed via R-148 to CHINA. Thence.....

TAKE-OFF RWY 8: Climb to 2700 via heading 077°, then climbing left turn within 4 DME to intercept R-328 direct NID TACAN and proceed via R-148 to CHINA. Thence .....

TAKE-OFF RWY 21: Climb to 2700 via heading 209°, then climbing right turn within 4 DME to intercept R-328 direct NID TACAN and proceed via R-148 to CHINA. Thence .....

TAKE-OFF RWY 26: Climb to 2700 via heading 257°, then climbing right turn within 4 DME to intercept R-328 direct NID TACAN and proceed via R-148 to CHINA. Thence.....

TAKE-OFF RWY 32: Climb to 2700 via heading 321°, then climbing right turn within 3 DME to intercept R-148 to CHINA. Thence.....

(CONTINUED ON NEXT PAGE)

(CONTINUED FROM PRECEDING PAGE)

DEPARTURE ROUTE DESCRIPTION

Cross HAVTI at or above 4000. Cross HABAS at or above 6000. Cross CHINA at assigned altitude.

TAKE OFF RWY 14: Climbing righ turn to intercept NID R-148 to CHINA. Cross HADOP at or above 6000. Cross CHINA at assigned altitude.

ALL RWYS: Max departure speed 250 KIAS until established on R-148. From CHINA, proceed via assigned transition or expect radar vectors to join assigned route.

EDWARDS TRANSITION (CHINA4•EDW): Via EDW R-027 to EDW. Expect radar vectors to join assigned route.

HECTOR TRANSITION (CHINA4•HEC): Via HEC R-280 to HEC.

SW-3, 14 JAN 2010 to 11 FEB 2010

HI-TACAN RWY 32

TACAN NID Chan 53	APCH CRS 314°	Rwy Idg 9013 TDZE 2240 Arpt Elev 2283

JAL-914 [USN] CHINA LAKE NAWS (ARMITAGE FIELD) (KNID)

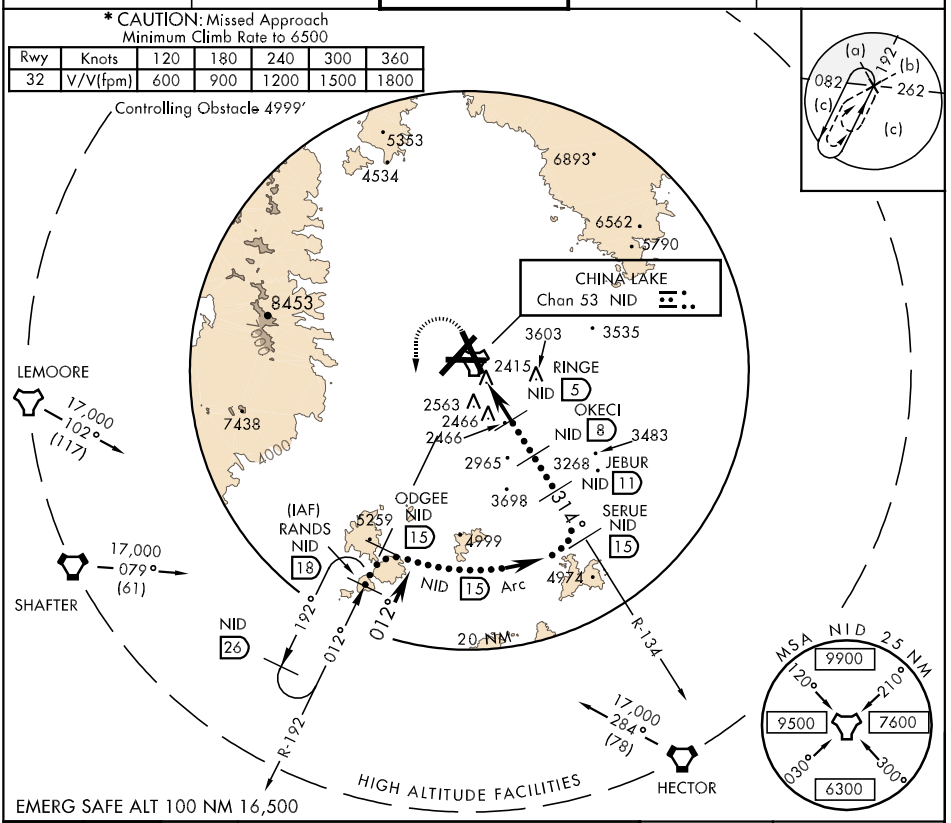
▼
** CAT E circling not authorized E of Rwy 14-32.

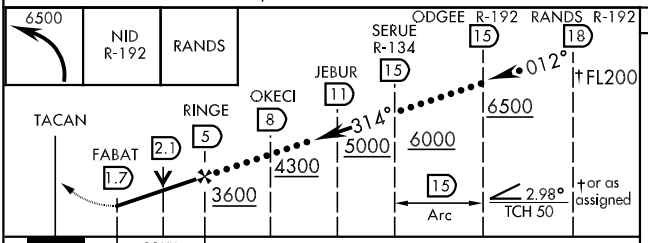
* MISSED APPROACH: Climbing left turn to 6500, intercept NID R-192 to RANDS and hold.

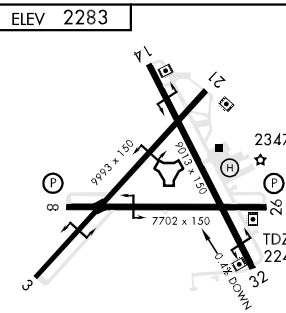
ATIS *	JOSHUA APP CON	CHINA LAKE TOWER *	GND CON	CLNC DEL
322.375	133.65 348.7	120.15 340.2	360.2	274.7

* CAUTION: Missed Approach Minimum Climb Rate to 6500

Rwy	Knots	120	180	240	300	360
32	V/V(fpm)	600	900	1200	1500	1800







CATEGORY	C	D	E
S-32	2680-1¼ 440 (400-1¼)	2680-1½ 440 (400-1½)	
CIRCLING**	2740-1½ 457 (500-1½)	2840-2 557 (600-2)	2880-2 597 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

RNAV (GPS) RWY 32

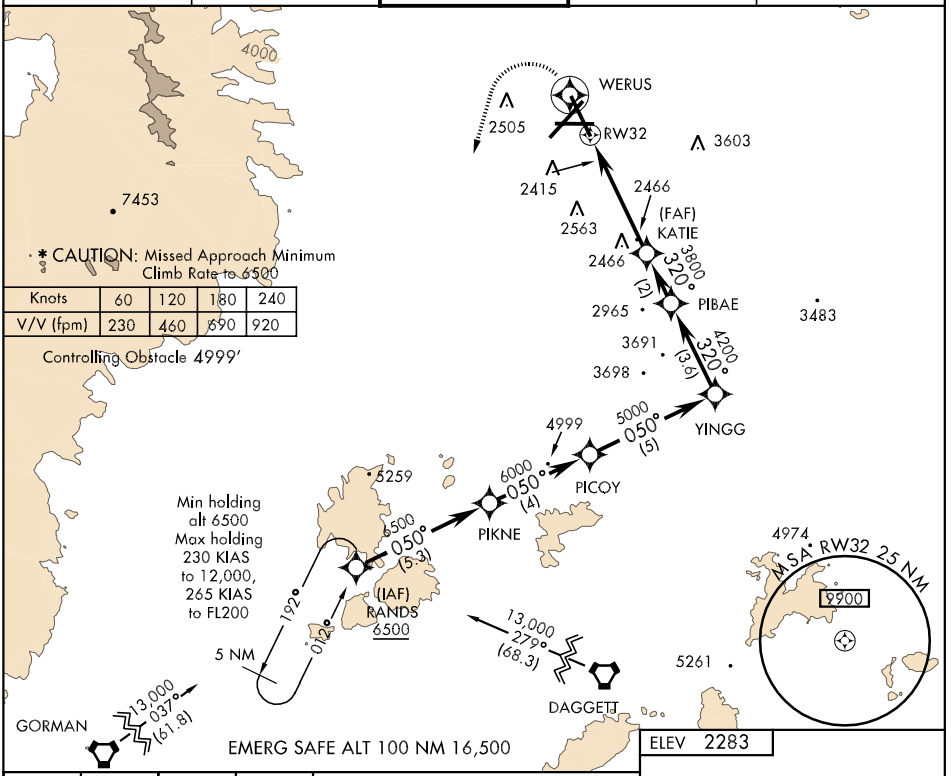
APCH CRS	Rwy ldg	9013
320°	TDZE	2240
	Arpt Elev	2283

AL-914 [USN] CHINA LAKE NAWS (ARMITAGE FIELD) (KNID)

▼ RNP-0.3 or GPS required
DME/DME RNP-0.3 NA.
Baro VNAV NA below -19.57°C (-3.22°F).

* MISSED APPROACH: Climb to 6500 direct WERUS, then climbing left turn direct RANDS and hold.

ATIS *	JOSHUA APP CON	CHINA LAKE TOWER *	GND CON	CLNC DEL
322.375	133.65 348.7	120.15 340.2	360.2	274.7

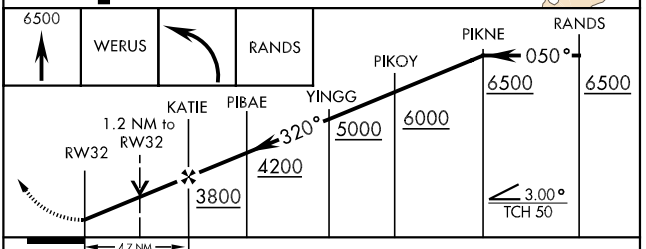


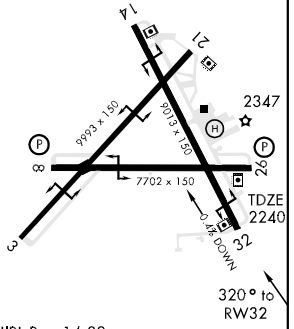
* CAUTION: Missed Approach Minimum Climb Rate to 6500

Knots	60	120	180	240
V/V (fpm)	230	460	690	920

Controlling Obstacle 4999'

ELEV 2283





CATEGORY	A	B	C	D
LNAV MDA	2680-1 440 (400-1)		2680-1¼ 440 (400-1¼)	2680-1½ 440 (400-1½)
LNAV/VNAV DA	2720-1 480 (500-1)		2720-1¼ 480 (500-1¼)	2720-1½ 480 (500-1½)
CIRCLING	2720-1 437 (500-1)	2740-1 457 (500-1)	2740-1½ 457 (500-1½)	2840-2 557 (600-2)

HIRL Rwy 14-32
MIRL Rwys 3-21 and 8-26

SW-3, 14 JAN 2010 to 11 FEB 2010

35°41'N-117°41'W CHINA LAKE NAWS (ARMITAGE FIELD) (KNID)

RNAV (GPS) RWY 32

SALTD-THREE HI DEPARTURE (SALTD 3•SALTD)

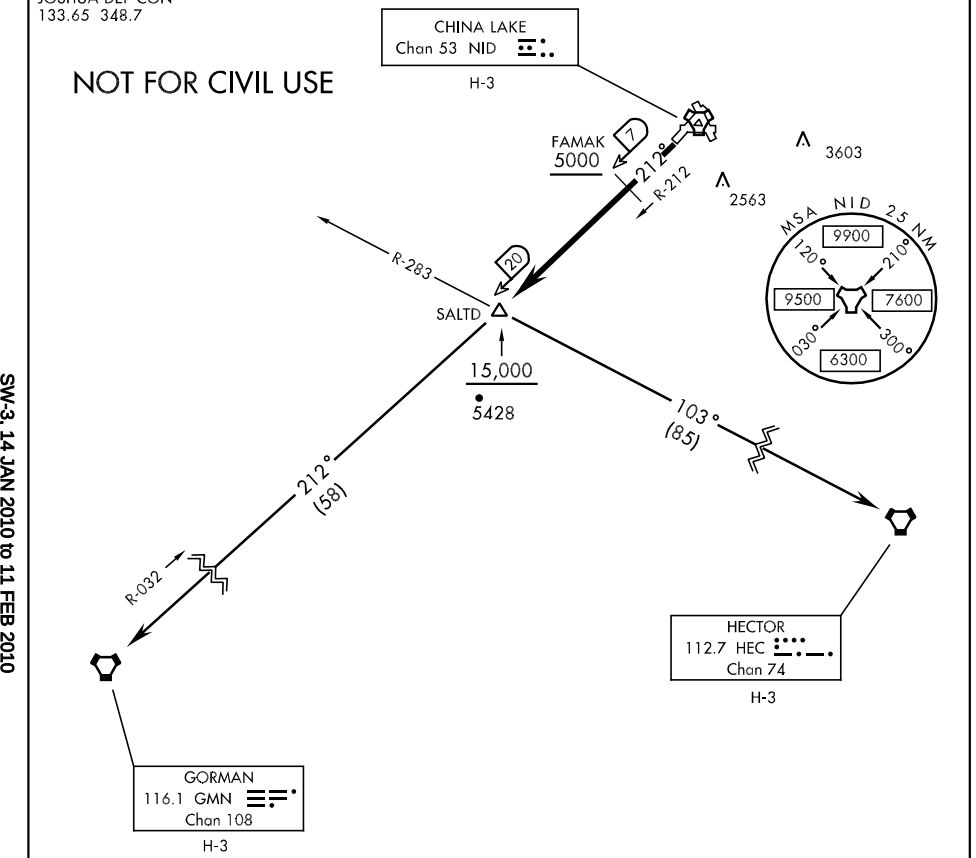
RIDGECREST, CALIFORNIA

ATIS ★322.375
CLNC DEL
274.7
GND CON
360.2
CHINA LAKE TOWER ★
120.15 340.2
JOSHUA DEP CON
133.65 348.7

SH-914 [USN]

Rwy	Knots	120	180	240	300	360
†21 ⓓ	V/V(fpm)	1360	2040	2720	3400	4080

† ATC Climb Rate
ⓓ to 15,000



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 21: Climb via NID R-212 to SALTD. From SALTD, proceed via assigned transition or expect radar vectors to join assigned route. Cross FAMAK at or above 5000. Cross SALTD at or above 15,000.

GORMAN TRANSITION (SALTD 3•GMN): Via GMN R-032 to GMN.

HECTOR TRANSITION (SALTD 3•HEC): Via HEC R-283 to HEC.

SALTD-THREE HI DEPARTURE (SALTD 3•SALTD)

RIDGECREST, CALIFORNIA

TACAN RWY 32

TACAN NID	APCH CRS	Rwy ldg	9013
Chan 53	314°	TDZE	2240
		Arpt Elev	2283

AL-914 [USN] CHINA LAKE NAWS (ARMITAGE FIELD) (KNID)

* MISSED APPROACH: Climbing left turn to 6500, intercept NID R-192 to RANDS and hold.

ATIS *	JOSHUA APP CON	CHINA LAKE TOWER *	GND CON	CLNC DEL
322.375	133.65 348.7	120.15 340.2	360.2	274.7

8453

* CAUTION: Missed Approach Minimum Climb Rate to 6500

Rwy	Knots	60	120	180	240
32	V/V (fpm)	300	600	900	1200

Controling Obstacle 4999'

CHINA LAKE Chan 53 NID 3535

3603

2415 2563 2466 2466 RINGE NID 5 OKECI NID 8 2965 3483 3268 3698

10 NM

JEBUR NID 11 314° SERUE NID 15 R-134

ODGEE NID 15 5259 4999 4974

Min holding alt 6500 Max holding 230 KIAS to 12,000, 265 KIAS to FL200

NID 15 Arc

MSA NID 2.5 NM 120° 210° 300° 9900 9500 7600 6300

(IAF) RANDS NID 18 192° 012°

NID 23 13,000 037° (61.8)

13,000 279° (68.3) 5261

R-192

GORMAN

DAGGETT

EMERG SAFE ALT 100 NM 16,500

ELEV 2283

6500 NID R-192 RANDS R-192/ 18

ODGEE R-192 15 RANDS R-192 18 SERUE R-134 15 012° 6500 6500 JEBUR 11 OKECI 8 RINGE 5 314° 6000 TACAN FABAT 2.1 1.7 4300 5000 3600 15 Arc 2.98° TCH 50 3.3

9993 x 150 9013 x 150 7702 x 150 2347 TDZE 2240 0.4% DOWN 14 21 8 26 3 32 314° to TACAN

CATEGORY	A	B	C	D
S-32	2680-1 440 (400-1)		2680-1¼ 440 (400-1¼)	2680-1½ 440 (400-1½)
CIRCLING	2720-1 437 (500-1)	2740-1 457 (500-1)	2740-1½ 457 (500-1½)	2840-2 557 (600-2)

HIRL Rwy 14-32
MIRL Rwys 3-21 and 8-26

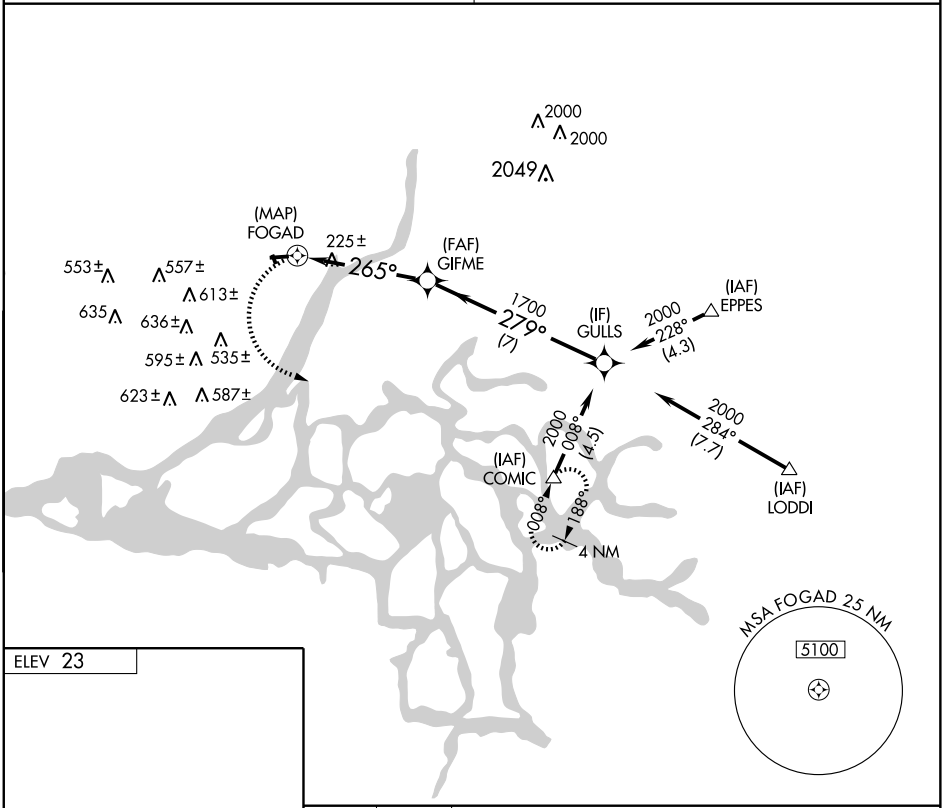
SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	4200
265°	TDZE	23
	Apt Elev	23

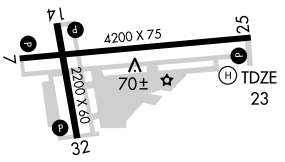
RNAV (GPS) RWY 25

RIO VISTA MUNI (088)

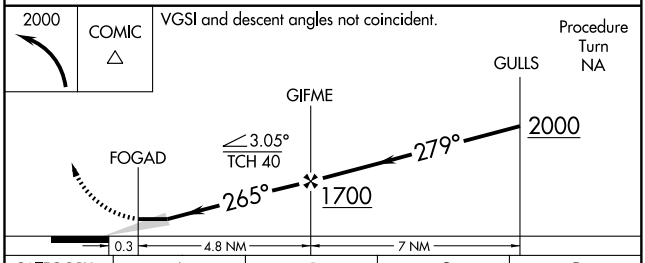
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Use Travis AFB altimeter setting.	MISSED APPROACH: Climbing left turn to 2000 direct COMIC and hold.
NORCAL APP CON **125.25 257.9**	UNICOM **122.725** (CTAF) L



ELEV 23



MIRL Rwys 7-25 and 14-32 L



CATEGORY	A	B	C	D
LNAV MDA	560-1 537 (600-1)		560-1½ 537 (600-1½)	NA
CIRCLING	560-1 537 (600-1)	580-1 557 (600-1)	620-1½ 597 (600-1½)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC SAC	APP CRS	Rwy Idg	N/A
115.2	189°	TDZE	N/A
Chan 99		Apt Elev	23

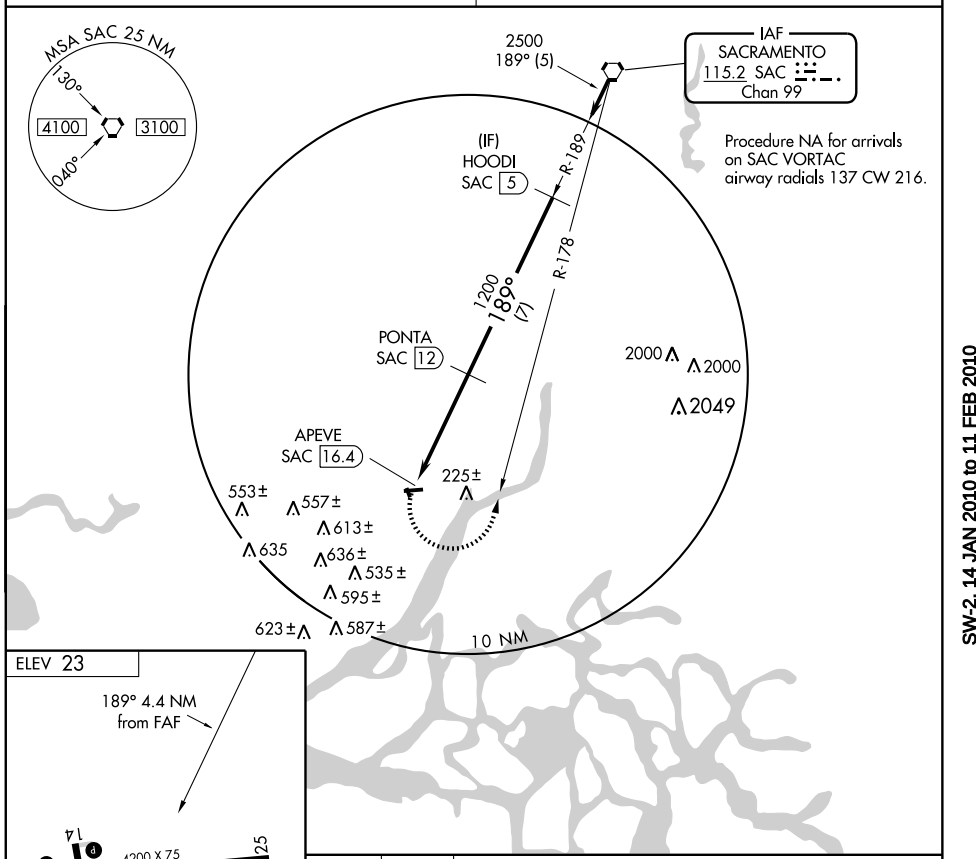
VOR/DME-A
RIO VISTA MUNI (088)

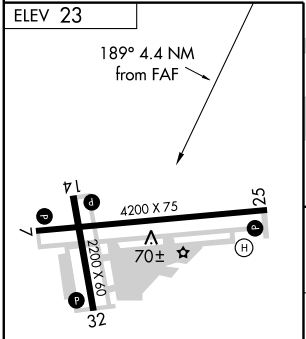
NA

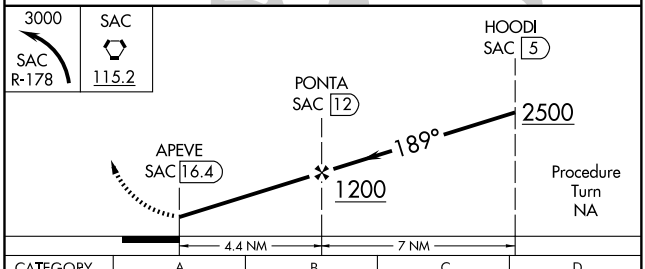
Use Travis AFB altimeter setting.

MISSED APPROACH: Climbing left turn to 3000 via SAC VORTAC R-178 to SAC VORTAC.

NORCAL APP CON	UNICOM
125.25 257.9	122.725 (CTAF) L







MIRL Rwys 7-25 and 14-32 L

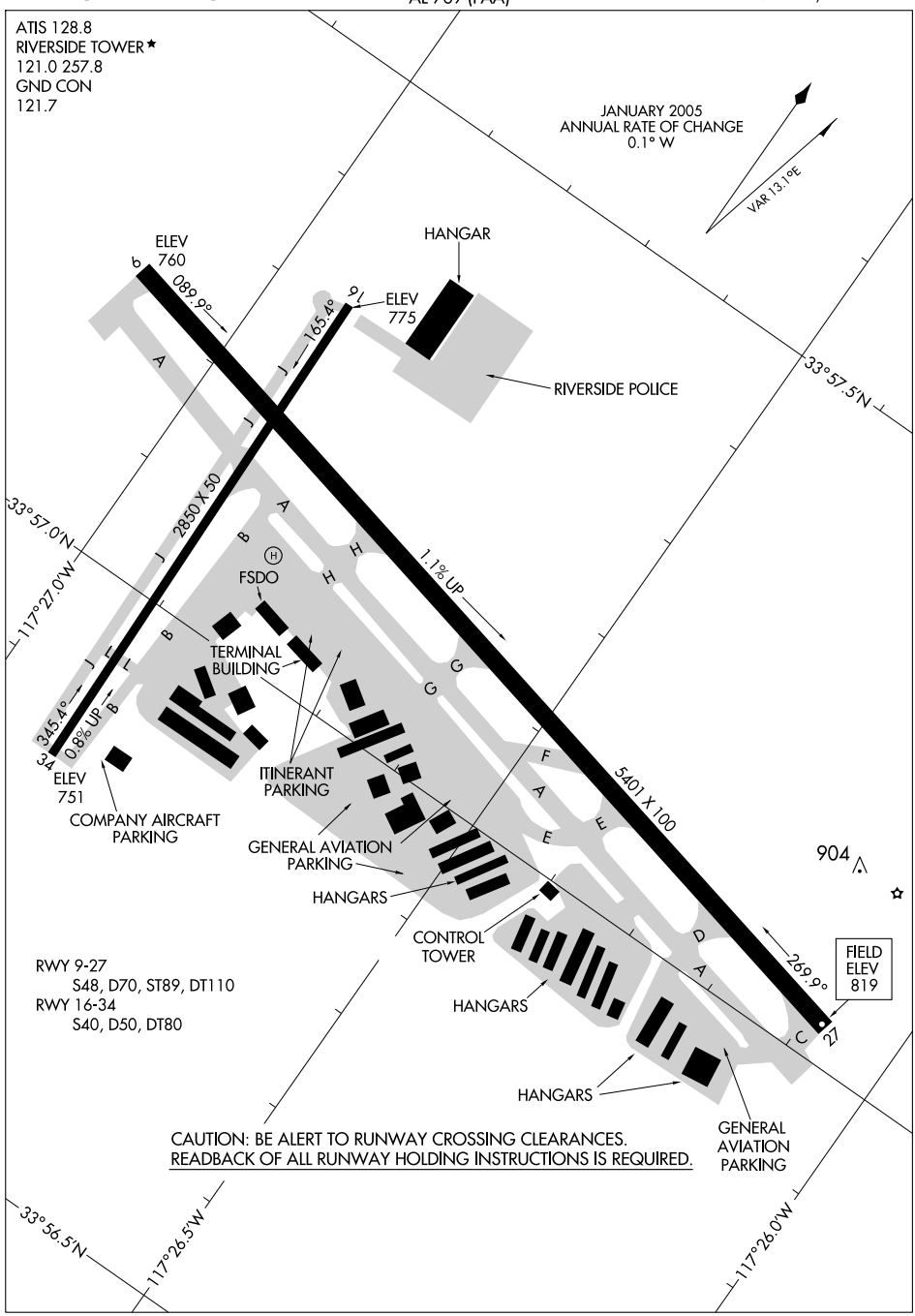
CATEGORY	A	B	C	D
CIRCLING	560-1 537 (600-1)	580-1 557 (600-1)	620-1½ 597 (600-1½)	NA

07354

AIRPORT DIAGRAM

AL-769 (FAA)

RIVERSIDE MUNI (RAL)
RIVERSIDE, CALIFORNIA



SW-3, 14 JAN 2010 to 11 FEB 2010

LOC I-RAL	APP CRS	Rwy Idg	5401
110.9	089°	TDZE	794
		Apt Elev	818

ILS or LOC RWY 9

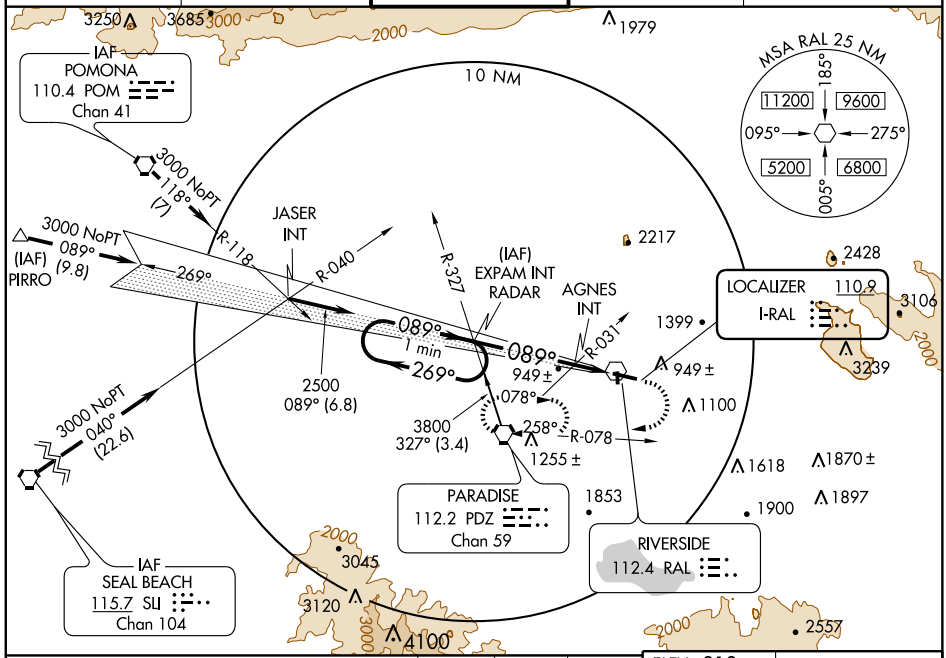
RIVERSIDE MUNI (RAL)

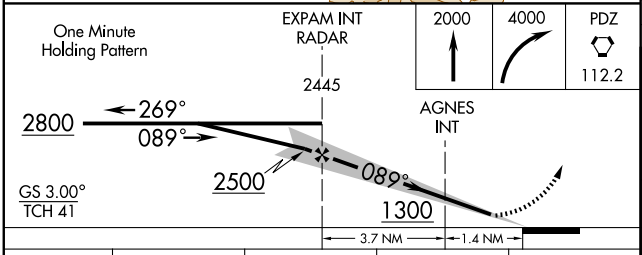
For inoperative MALSR increase AGNES FIX MINIMUMS S-LOC Cat D visibility to 1¼ . Autopilot coupled approach NA below 1440. Circling NA north of Rwy 9-27 for Cat D.

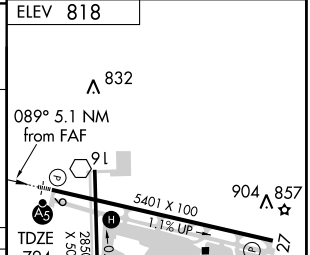
MALSR

MISSED APPROACH: Climb to 2000 then climbing right turn to 4000 direct PDZ VORTAC and hold.

ATIS	SOCAL APP CON	RIVERSIDE TOWER ★	GND CON	UNICOM
128.8	135.4 377.125	121.0 (CTAF) L 257.8	121.7	122.95







CATEGORY	A	B	C	D
S-ILS 9	994-½ 200 (200-½)			994-¾ 200 (200-¾)
S-LOC 9	1300-½ 506 (500-½)		1300-1 506 (500-1)	
CIRCLING	1300-1 482 (500-1)	1360-1 542 (600-1)	1620-2¼ 802 (900-2¼)	1620-2½ 802 (900-2½)
AGNES FIX MINIMUMS				
S-LOC 9	1200-½ 406 (400-½)		1200-¾ 406 (400-¾)	1200-1 406 (400-1)
CIRCLING	1260-1 442 (500-1)	1360-1 542 (600-1)	1620-2¼ 802 (900-2¼)	1620-2½ 802 (900-2½)

REIL Rwy 27
MIRL Rwys 9-27 and 16-34 L

FAF to MAP 5.1 NM

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS CH 50203 W09A	APP CRS 089°	Rwy Idg 5401 TDZE 795 Apt Elev 819

RNAV (GPS) RWY 9

RIVERSIDE MUNI (RAL)

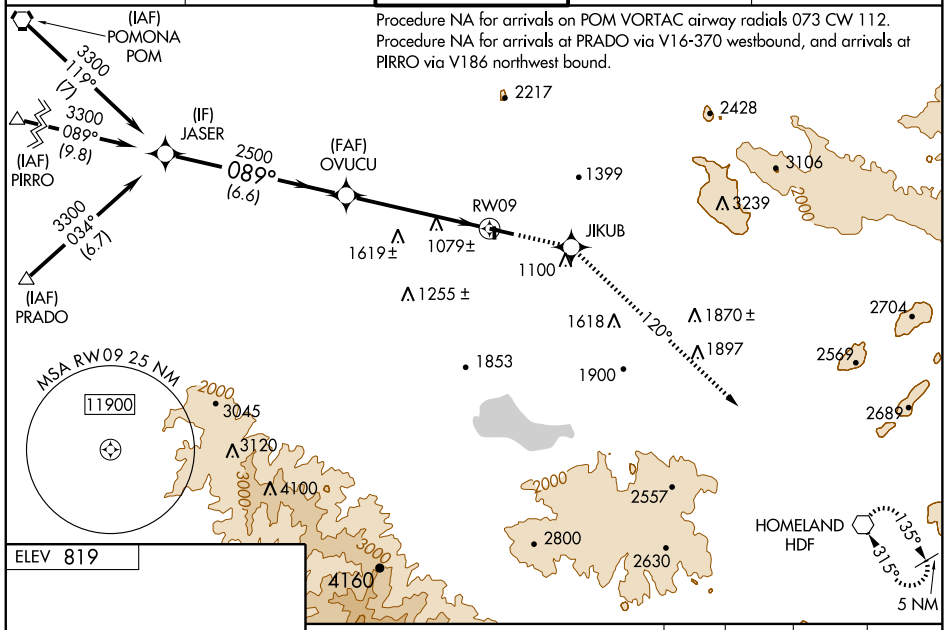
Circling NA for Cat D north of Rwy 9-27.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (117°F).
When local altimeter setting not received, use Chino altimeter setting and increase all DAs/MDAs 60 feet, and LPV and LNAV/VNAV all visibilities ¼ mile.
VDP and Baro-VNAV NA when using Chino altimeter setting.
When VGSI inoperative, circling to Rwy 34 NA at night.
For inoperative MALSR, increase LPV all Cats visibility to 1¼. When using Chino altimeter setting increase LPV all Cats visibility to 1½.

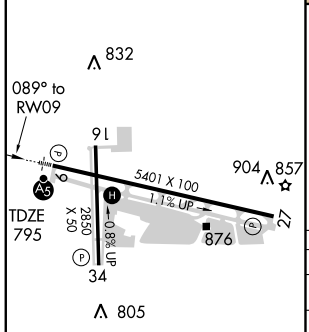
MALSR

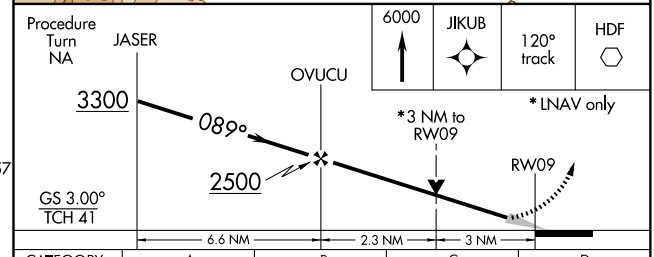
MISSED APPROACH: Climb to 6000 direct JIKUB and via 120° track to HDF VOR and hold, continue climb-in-hold 6000.

ATIS	SOCAL APP CON	RIVERSIDE TOWER ★	GND CON	UNICOM
128.8	135.4 377.125	121.0 (CTAF) (L) 257.8	121.7	122.95

Procedure NA for arrivals on POM VORTAC airway radials 073 CW 112.
Procedure NA for arrivals at PRADO via V16-370 westbound, and arrivals at PIRRO via V186 northwest bound.







CATEGORY	A	B	C	D
LPV DA	1120-¾ 325 (400-¾)			
LNAV/VNAV DA	1473-2 678 (700-2)			
LNAV MDA	1760-¾ 965 (1000-¾)	1760-1 965 (1000-1)	1760-2½ 965 (1000-2½)	
CIRCLING	1760-1¼ 941 (1000-1¼)	1760-1½ 941 (1000-1½)	1760-3 941 (1000-3)	

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	5401
CH 82201	269°	TDZE	818
W27A		Apt Elev	818

RNAV (GPS) RWY 27
RIVERSIDE MUNI (RAL)

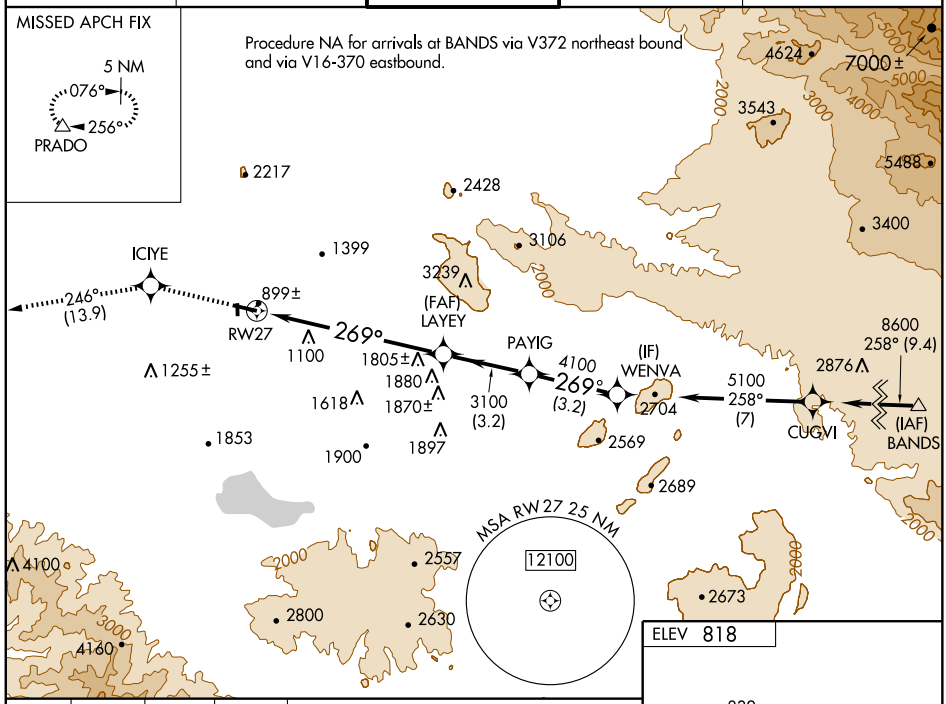
DME/DME RNP -0.3 NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 46°C (116°F).
Circling NA for Cat D north of Rwy 9-27.
Visibility reduction by helicopters NA.

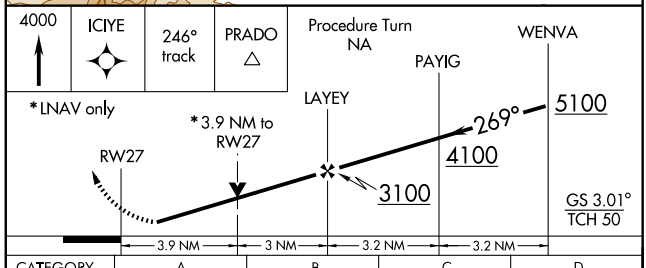
MISSED APPROACH: Climb to 4000 direct ICIYE and via 246° track to PRADO and hold.

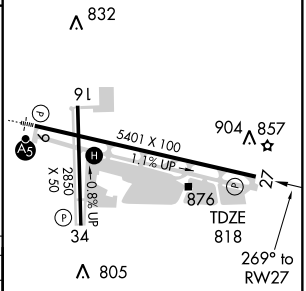
ATIS	SOCAL APP CON	RIVERSIDE TOWER ★	GND CON	UNICOM
128.8	135.4 377.125	121.0 (CTAF) L 257.8	121.7	122.95

MISSED APCH FIX

Procedure NA for arrivals at BANDS via V372 northeast bound and via V16-370 eastbound.



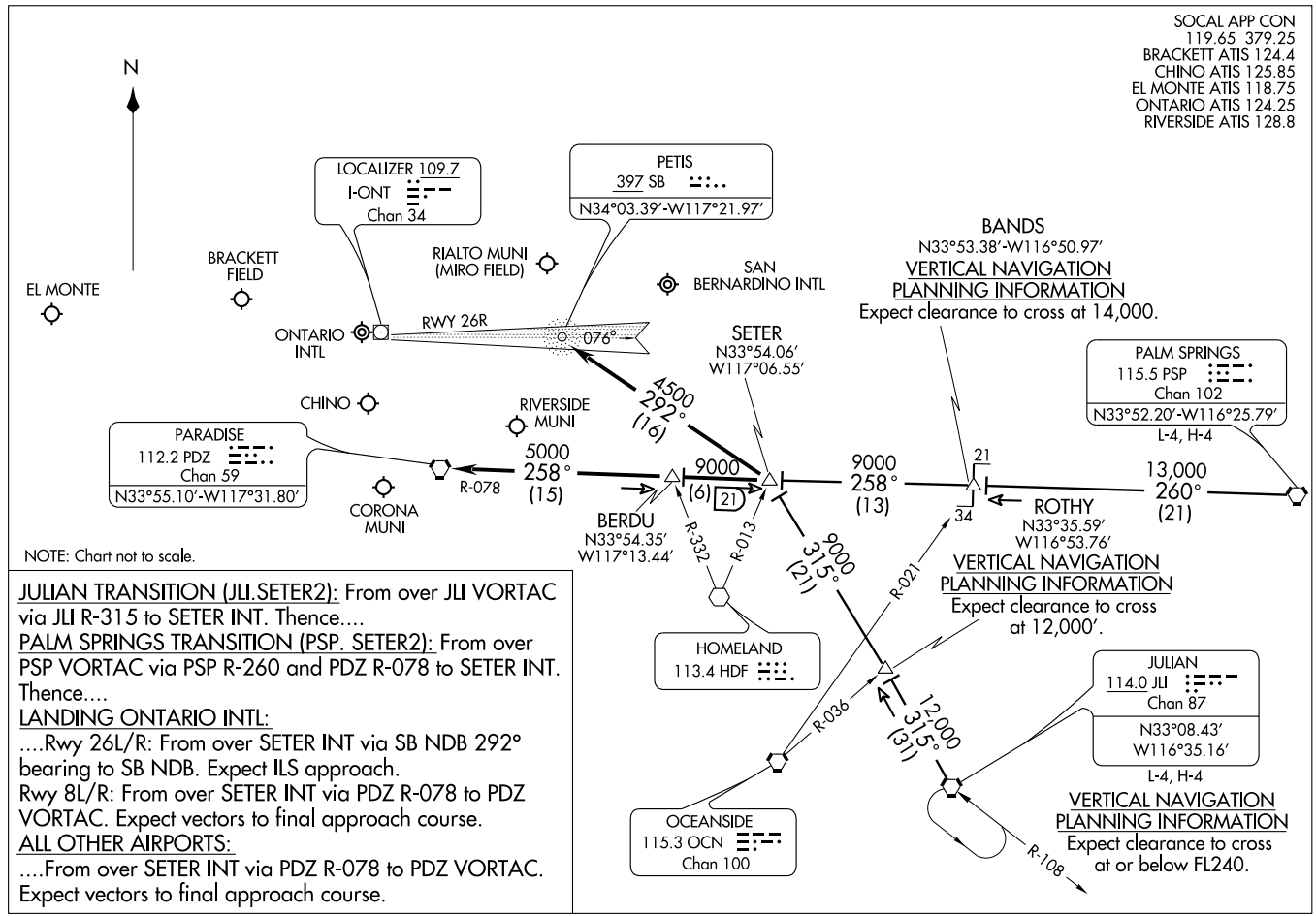




CATEGORY	A	B	C	D
LPV DA	1236-1½ 418 (500-1½)			
LNAV/VNAV DA	1368-2 550 (600-2)			
LNAV MDA	2100-1¼ 1282 (1300-1¼)	2100-1½ 1282 (1300-1½)	2100-3 1282 (1300-3)	
CIRCLING	2100-2 1282 (1300-2)		2100-3 1282 (1300-3)	

REIL Rwy 27
MIRL Rwys 9-27 and 16-34 L

SW-3, 14 JAN 2010 to 11 FEB 2010



NOTE: Chart not to scale.

JULIAN TRANSITION (JLI.SETER2): From over JLI VORTAC via JLI R-315 to SETER INT. Thence....

PALM SPRINGS TRANSITION (PSP. SETER2): From over PSP VORTAC via PSP R-260 and PDZ R-078 to SETER INT. Thence....

LANDING ONTARIO INTL:

....Rwy 26L/R: From over SETER INT via SB NDB 292° bearing to SB NDB. Expect ILS approach.

Rwy 8L/R: From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ALL OTHER AIRPORTS:

....From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ST-965 (FAA)

ONTARIO, CALIFORNIA

VOR RAL 112.4	APP CRS 270°	Rwy Idg N/A TDZE N/A Apt Elev 819

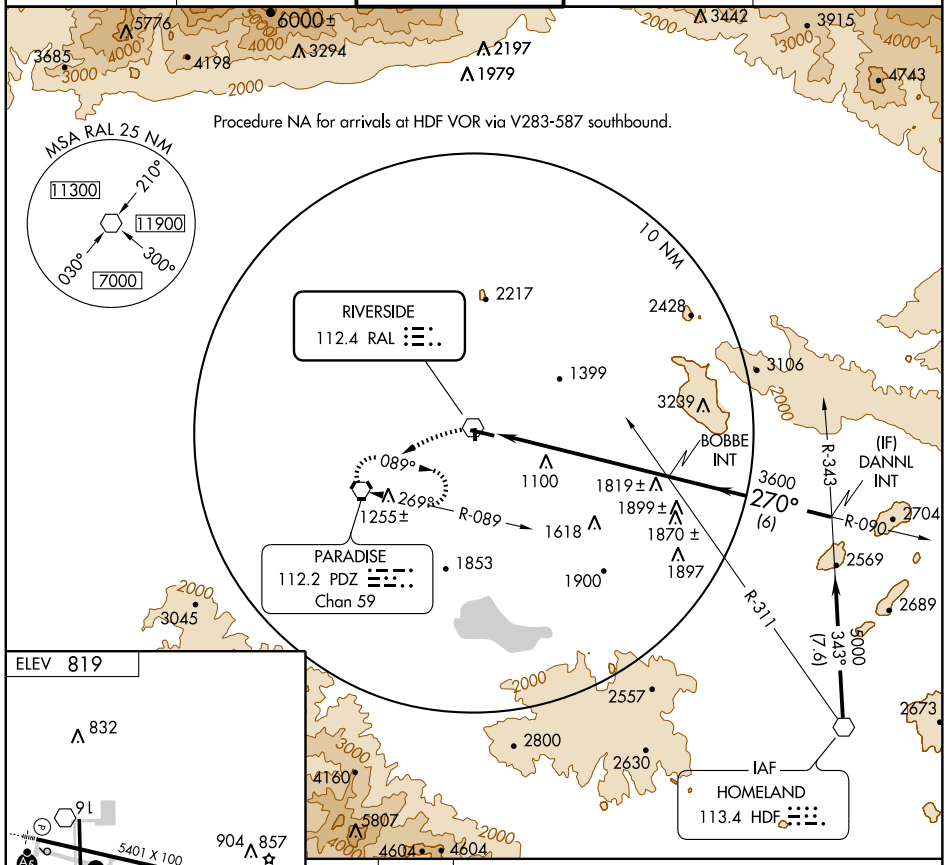
VOR-A

RIVERSIDE MUNI (RAL)

When VGSI inoperative, circling Rwy 34 NA at night.
When local altimeter setting not received, use Chino altimeter setting and increase all MDAs 60 feet.

MISSED APPROACH: Climbing left turn to 4500 direct PDZ VORTAC and hold, continue climb-in-hold to 4500.

ATIS	SOCAL APP CON	RIVERSIDE TOWER ★	GND CON	UNICOM
128.8	135.4 377.125	121.0 (CTAF) Ⓛ 257.8	121.7	122.95



REIL Rwy 27
MIRL Rwys 9-27 and 16-34 Ⓛ

FAF to MAP 6.4 NM					
Knots	60	90	120	150	180
Min:Sec	6:24	4:16	3:12	2:34	2:08

CATEGORY	A	B	C	D
CIRCLING	2300-1¼ 1481 (1500-1¼)	2300-1½ 1481 (1500-1½)	2300-3 1481 (1500-3)	NA

SW-3, 14 JAN 2010 to 11 FEB 2010

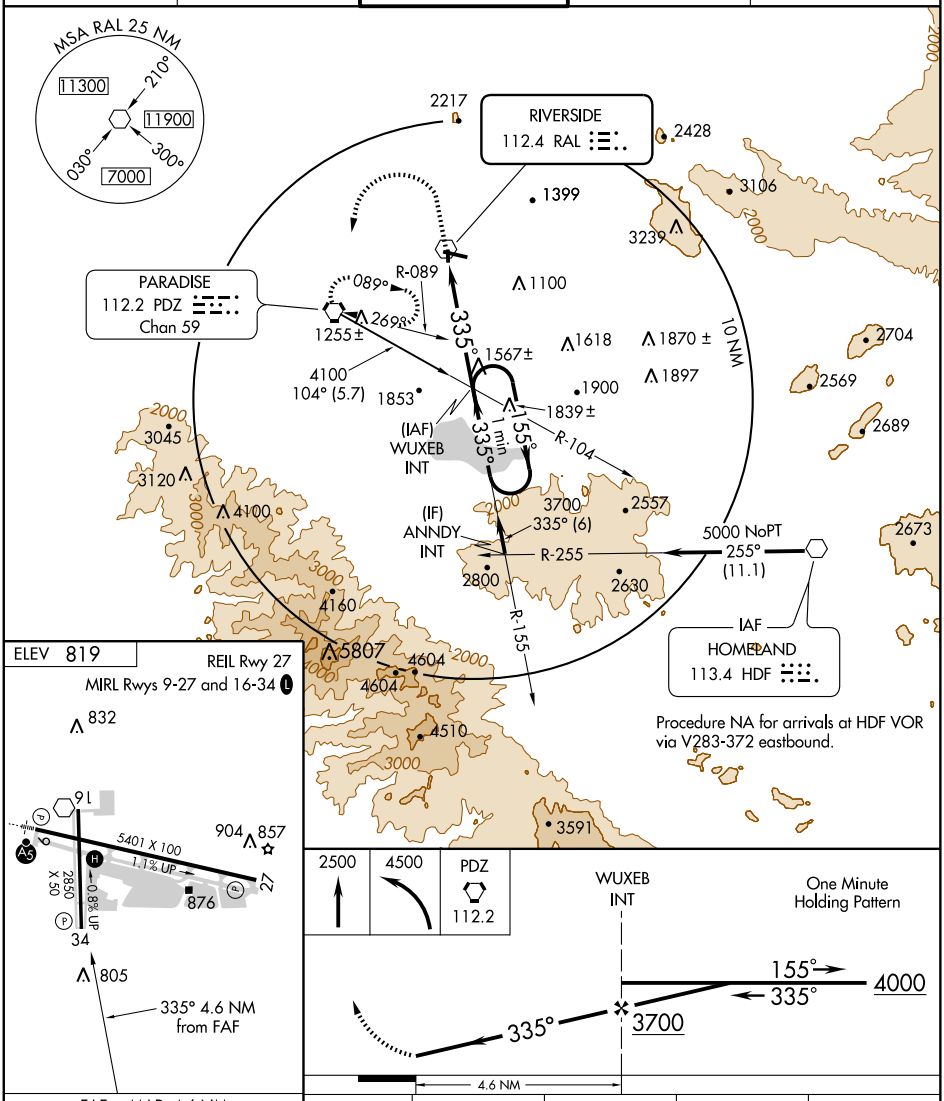
VOR RAL 112.4	APP CRS 335°	Rwy Idg N/A TDZE N/A Apt Elev 819

VOR-B
RIVERSIDE MUNI (RAL)

When VGSI inoperative, circling Rwy 34 NA at night.
Circling NA for Cat D north of Rwy 9-27.
When local altimeter setting not received, use Chino altimeter setting and increase all MDA 60 feet.

MISSED APPROACH: Climb to 2500 then climbing left turn to 4500 direct PDZ VORTAC and hold, continue climb-in-hold to 4500.

ATIS	SOCAL APP CON	RIVERSIDE TOWER ★	GND CON	UNICOM
128.8	135.4 377.125	121.0 (CTAF) L 257.8	121.7	122.95



335° 4.6 NM from FAF

FAF to MAP 4.6 NM					
Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

CATEGORY	A	B	C	D
CIRCLING	2000-1¼ 1181 (1200-1¼)	2000-1½ 1181 (1200-1½)	2000-3 1181 (1200-3)	

SW-3, 14 JAN 2010 to 11 FEB 2010

VOR RAL 112.4	APP CRS 079°	Rwy Idg 5401 TDZE 795 Apt Elev 819

VOR RWY 9

RIVERSIDE MUNI (RAL)

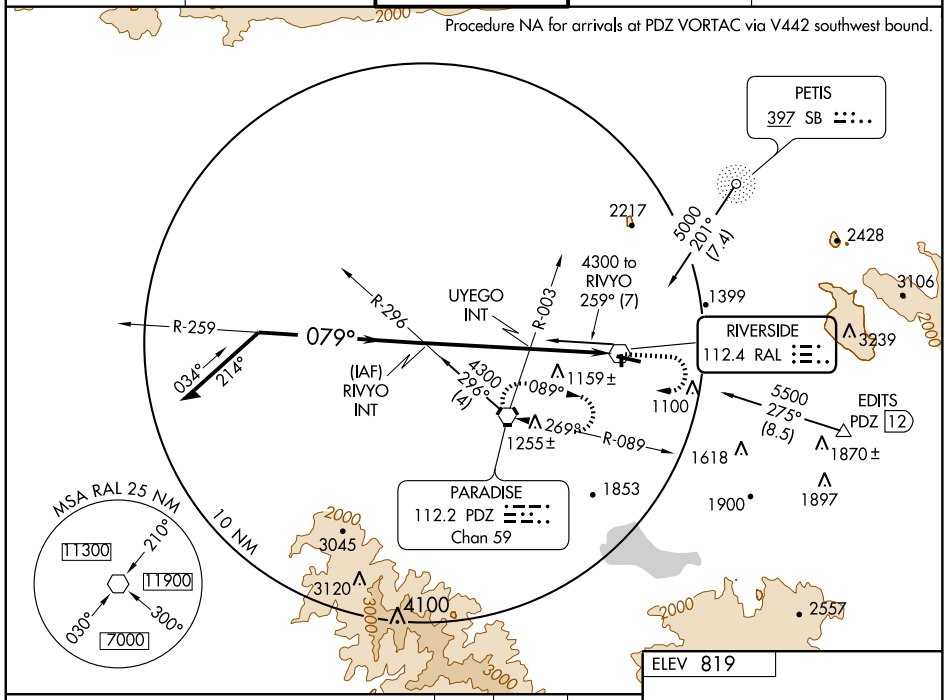
When VGSI inoperative, circling Rwy 34 NA at night. When local altimeter setting not received, use Chino altimeter setting and increase all MDAs 60 feet.

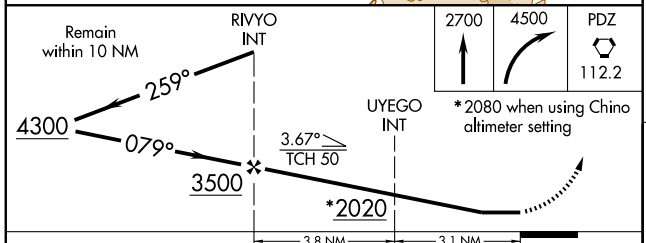
MALSR

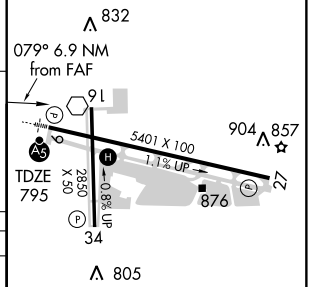
MISSED APPROACH: Climb to 2700 then climbing right turn to 4500 direct PDZ VORTAC and hold, continue climb-in-hold to 4500.

ATIS	SOCAL APP CON	RIVERSIDE TOWER ★	GND CON	UNICOM
128.8	135.4 377.125	121.0 (CTAF) L 257.8	121.7	122.95

Procedure NA for arrivals at PDZ VORTAC via V442 southwest bound.





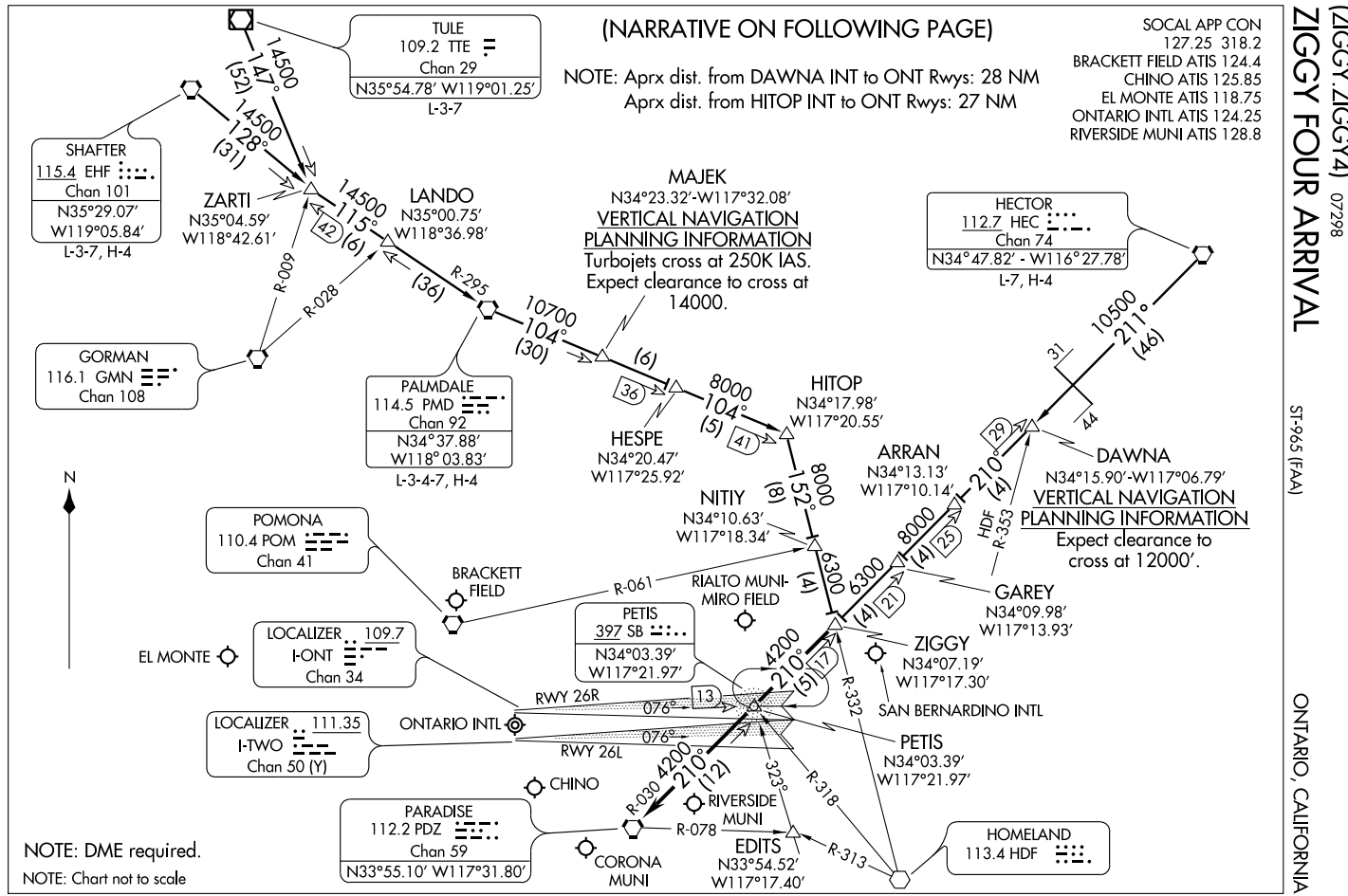


CATEGORY	A	B	C	D
S-9	2020-¾ 1225 (1300-¾)	2020-1 1225 (1300-1)	2020-2½ 1225 (1300-2½)	NA
CIRCLING	2020-1¼ 1201 (1300-1¼)	2020-1½ 1201 (1300-1½)	2020-3 1201 (1300-3)	NA
UYEGO FIX MINIMUMS (DUAL VOR RECEIVERS REQUIRED)				
S-9	1740-¾ 945 (1000-¾)		1740-2¼ 945 (1000-2¼)	NA
CIRCLING	1740-1¼ 921 (1000-1¼)		1740-2¾ 921 (1000-2¾)	NA

REIL Rwy 27
MIRL Rwys 9-27 and 16-34 L

FAF to MAP 6.9 NM					
Knots	60	90	120	150	180
Min:Sec	6:54	4:36	3:27	2:46	2:18

SW-3, 14 JAN 2010 to 11 FEB 2010


(NARRATIVE ON FOLLOWING PAGE)
NOTE: Aprx dist. from DAWNA INT to ONT Rwys: 28 NM
Aprx dist. from HITOP INT to ONT Rwys: 27 NM
SOCAL APP CON
127.25 318.2
BRACKETT FIELD ATIS 124.4
CHINO ATIS 125.85
EL MONTE ATIS 118.75
ONTARIO INTL ATIS 124.25
RIVERSIDE MUNI ATIS 128.8
ZIGGY FOUR ARRIVAL
(ZIGGY.ZIGGY4) 07298
ST-965 (FAA)
ONTARIO, CALIFORNIA
TULE
109.2 TTE
Chan 29
N35°54.78' W119°01.25'
L-3-7
SHAFTER
115.4 EHF
Chan 101
N35°29.07'
W119°05.84'
L-3-7, H-4
ZARTI
N35°04.59'
W118°42.61'
LANDO
N35°00.75'
W118°36.98'
MAJEK
N34°23.32'-W117°32.08'
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojets cross at 250K IAS.
Expect clearance to cross at
14000.
HECTOR
112.7 HEC
Chan 74
N34°47.82' - W116°27.78'
L-7, H-4
GORMAN
116.1 GMN
Chan 108
PALMDALE
114.5 PMD
Chan 92
N34°37.88'
W118°03.83'
L-3-4-7, H-4
HESPE
N34°20.47'
W117°25.92'
HITOP
N34°17.98'
W117°20.55'
ARRAN
N34°13.13'
W117°10.14'
DAWNA
N34°15.90'-W117°06.79'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance to
cross at 12000'.
NITIY
N34°10.63'
W117°18.34'
POMONA
110.4 POM
Chan 41
BRACKETT
FIELD
RIALTO MUNI-
MIRO FIELD
GAREY
N34°09.98'
W117°13.93'
PETIS
397 SB
N34°03.39'
W117°21.97'
ZIGGY
N34°07.19'
W117°17.30'
EL MONTE
LOCALIZER 109.7
I-ONT
Chan 34
SAN BERNARDINO INTL
RWY 26R
RWY 26L
ONTARIO INTL
LOCALIZER 111.35
I-TWO
Chan 50 (Y)
PETIS
N34°03.39'
W117°21.97'
CHINO
PARADISE
112.2 PDZ
Chan 59
N33°55.10' W117°31.80'
RIVERSIDE
MUNI
CORONA
MUNI
EDITS
N33°54.52'
W117°17.40'
HOMELAND
113.4 HDF
NOTE: DME required.
NOTE: Chart not to scale
N

ZIGGY FOUR ARRIVAL

ARRIVAL ROUTE DESCRIPTION

HECTOR TRANSITION (HEC.ZIGGY4): From over HEC VORTAC via HEC R-211 and PDZ R-030 to ZIGGY INT. Thence . . . .

PALMDALE TRANSITION (PMD.ZIGGY4): From over PMD VORTAC via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

SHAFTER TRANSITION (EHF.ZIGGY4): From over EHF VORTAC via EHF R-128 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

TULE TRANSITION (TTE.ZIGGY4): From over TTE VOR/DME via TTE R-147 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

LANDING ONTARIO INTL:

. . . . RWY 8L/R: From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

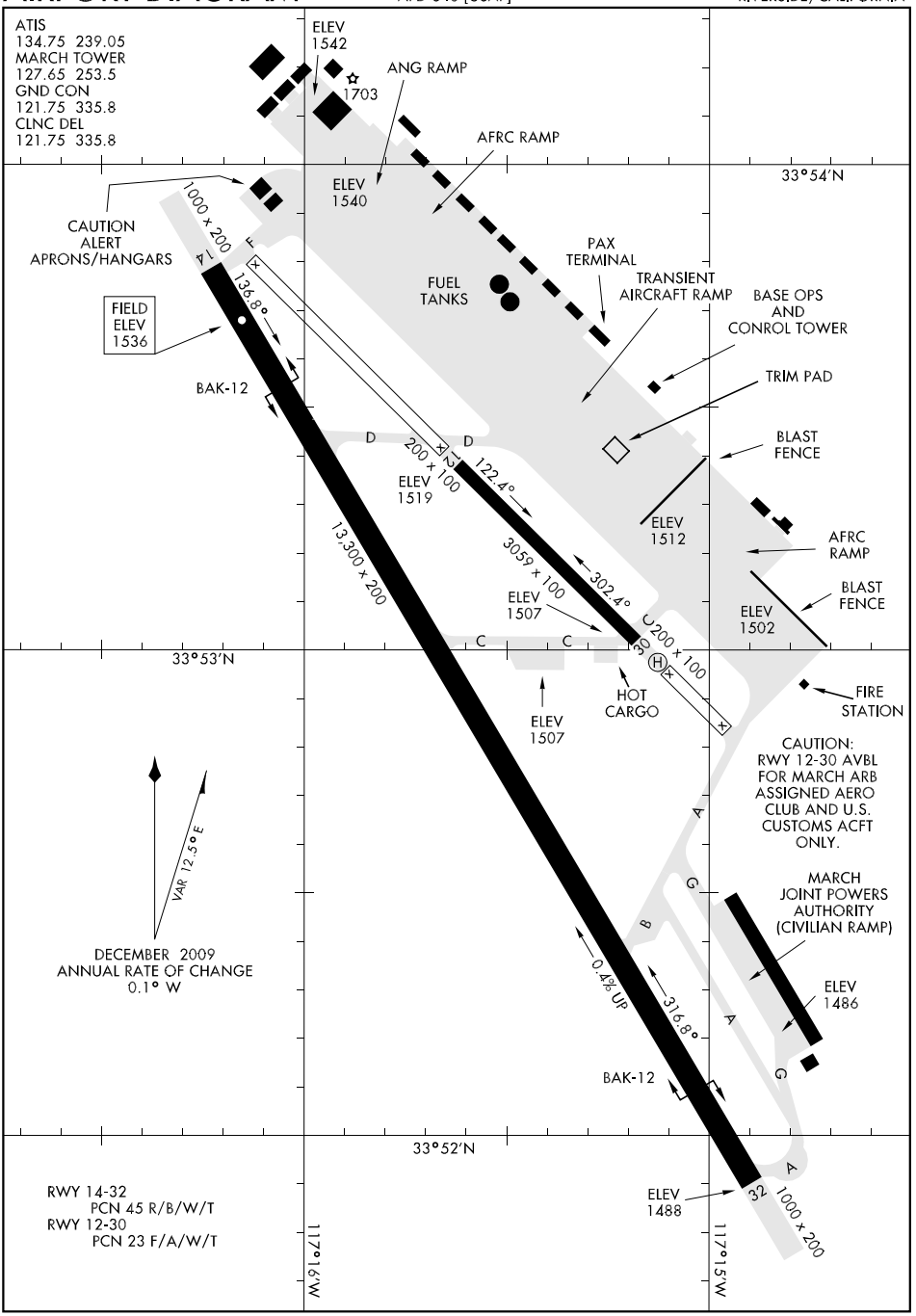
. . . . RWY 26 L/R: From over ZIGGY INT via direct PETIS NDB or PDZ R-030 to PETIS INT; expect radar vectors for ILS approach.

ALL OTHER AIRPORTS:

. . . . From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

LOST COMMUNICATIONS: For Rialto, California, NDB-A approach, proceed from PDZ VORTAC via PDZ R-078 to EDITS INT, maintain 4200'.

SW-3, 14 JAN 2010 to 11 FEB 2010


ATIS
134.75 239.05
MARCH TOWER
127.65 253.5
GND CON
121.75 335.8
CLNC DEL
121.75 335.8
ELEV 1542
1703
ANG RAMP
AFRC RAMP
ELEV 1540
33°54'N
CAUTION
ALERT
APRONS/HANGARS
1000 x 200
136.8°
FIELD ELEV 1536
BAK-12
PAX TERMINAL
FUEL TANKS
TRANSIENT AIRCRAFT RAMP
BASE OPS AND CONROL TOWER
TRIM PAD
BLAST FENCE
200 x 100
ELEV 1519
122.4°
ELEV 1512
AFRC RAMP
13,300 x 200
3059 x 100
302.4°
ELEV 1507
ELEV 1502
BLAST FENCE
33°53'N
U200 x 100
HOT CARGO
FIRE STATION
ELEV 1507
CAUTION:
RWY 12-30 AVBL FOR MARCH ARB ASSIGNED AERO CLUB AND U.S. CUSTOMS ACFT ONLY.
VAR 12.5° E
DECEMBER 2009
ANNUAL RATE OF CHANGE
0.1° W
MARCH JOINT POWERS AUTHORITY (CIVILIAN RAMP)
ELEV 1486
0.4% UP
316.8°
BAK-12
33°52'N
RWY 14-32
PCN 45 R/B/W/T
RWY 12-30
PCN 23 F/A/W/T
ELEV 1488
1000 x 200
117°16'W
117°15'W

HI-ILS or LOC/DME RWY 32

LOC I-RIV	APCH CRS	Rwy ldg / TDZE / Arpt Elev
110.1	315°	13,300 / 1497 / 1536

JAL-348 [USAF] — MARCH ARB (KRIV)

▼ * When ALS inop, increase CAT CDE RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT CD RVR to 60 and vis to 1¼ mile, CAT E vis to 1½.

ALSF-1 (A1)

MISSED APPROACH: Climb direct RIV TACAN. Then turn left to intercept RIV R-138 direct BOGLE, continue climb in hold to 5000.

ATIS	SOCAL APP CON	MARCH TOWER	GND CON	CLNC DEL
134.75 239.05	134.0 278.3	127.65 253.5	121.75 335.8	121.75 335.8

*** Circling not authorized NE of Rwy 14-32. Rapid rising terrain.

CAUTION: Ultralights, balloons, parachutists in vicinity of Perris Valley Arpt.

CAUTION: Ultralights and gliders in vicinity of Hemet-Ryan Arpt.

LOCALIZER 110.1 I-RIV

MARCH Chan 77 RIV

PARADISE 112.2 PDZ Chan 59

DEGNE RIV /RADAR 9.2

PERRIS VALLEY ARPT

HEMET-RYAN ARPT

BOGLE RIV 11

RIV 18

CEMBO RIV 19

BEMLE RIV 28

OCEANSIDE 115.3 OCN Chan 100

HENSA RIV 45

RIV 53

11,500 · 10,834 · 6292 · 6672 · 5720 · 4604 · 3725 · 4717 · 3178 · 2811 · 2483 · 1958 · 1951 · 1632

R-124 · R-138 · R-074 · R-137

138° · 318° · 315° · 135° · 323°† · 317° · 137°

Min holding alt 5000
Max holding alt 6000

Max holding alt FL240
Max holding 265 KIAS

(IAF)

† Dead reckoning course to intercept localizer.

20 NM

MSA RIV 2.5 NM
200° · 290° · 020°
10,700 · 12,800 · 6600

EMERG SAFE ALT 100 NM 13,800 FROM "RIV" TACAN

ELEV 1536

TDZL/CL Rwy 32
HIRL Rwy 14-32

1703 · 1645

13,300 x 200
3059 x 100
0.4% up

TDZE 1497

315°6.4 NM from FAF

FAF to MAP 5.9 NM

Knots	120	140	160	180	200
Min:Sec	2:57	2:32	2:13	1:58	1:46

5000 RIV · RIV R-138 · BOGLE RIV 11 · DEGNE RIV /RADAR 9.2 · Intcp Lczr CEMBO RIV 19 · BEMLE RIV 28 · HENSA RIV/ 45 · FL240

RIV TACAN · RIV 3.9 · KIMDE RIV 3.3 · 3600 · 6000 · 12,000 · GS 3.00° · TCH 59

.5 · 5.9 NM

CATEGORY	C	D	E
S-ILS 32 *	1697/24 200 (200-½)		
S-LOC 32 **	1920/40 423 (400-¾)		1920/50 423 (400-1)
CIRCLING***	2260-2 724 (800-2)	2260-2¼ 724 (800-2¼)	2800-3 1264 (1300-3)

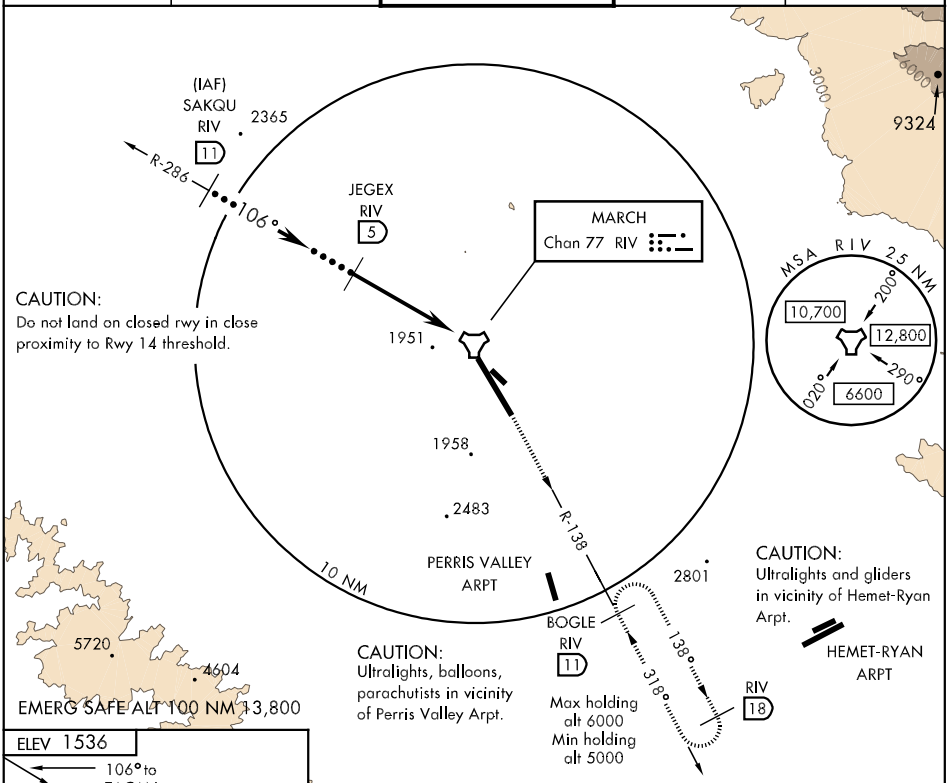
HI-TACAN RWY 14

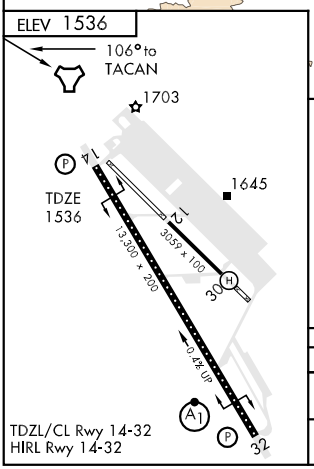
TACAN	APCH CRS	Rwy ldg / TDZE / Arpt Elev	AL-348 [USAF]	MARCH ARB (KRIV)
RIV Chan 77	106°	13,300 / 1536 / 1536		

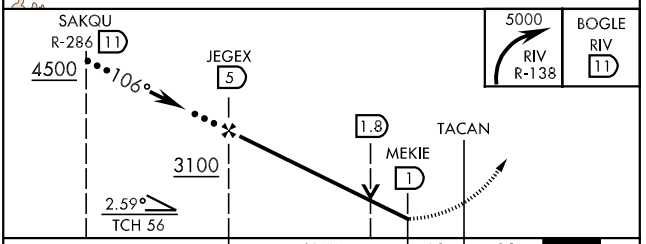
▼ * Circling not authorized NE of Rwy 14-32. Rapid rising terrain.

MISSED APPROACH: Climb out RIV TACAN R-138 direct BOGLE continue climb in hold to 5000.

ATIS	SOCAL APP CON	MARCH TOWER	GND CON	CLNC DEL
134.75 239.05	134.0 278.3	127.65 253.5	121.75 335.8	121.75 335.8







CATEGORY	C	D	E
S-14	2200-2 664 (700-2)		2200-2¼ 664 (700-2¼)
CIRCLING *	2260-2 724 (800-2)	2260-2¼ 724 (800-2¼)	2800-3 1264 (1300-3)

HI-TACAN RWY 32

TACAN	APCH CRS	Rwy ldg	TDZE	Arpt Elev
RIV Chan 77	318°	13,300	1497	1536

JAL-348 [USAF]

MARCH ARB (KRIV)

* When ALS inop, increase CAT C vis to 1½ miles, CAT D vis to 1¾ miles, and CAT E vis to 2 miles.

ALSF-1

MISSED APPROACH: Climb on RIV TACAN R-138 to 5000. At .6 DME South of RIV, turn left to intercept RIV R-138 direct BOGLE continue climb in hold to 5000.

ATIS	SOCAL APP CON	MARCH TOWER	GND CON	CLNC DEL
134.75 239.05	134.0 278.3	127.65 253.5	121.75 335.8	121.75 335.8

** Circling not authorized NE of Rwy 14-32.
Rapid rising terrain.

PARADISE
112.2 PDZ
Chan 59

MARCH
Chan 77 RIV

MSA RIV 25 NM
200°
10,700
12,800
290°
020°
6600

R-125

1951
1874
1958
OSTOR
RIV
9
2483
2686
2683
1640
2811
Min holding alt 5000
Max holding alt 6000

11,500
10,834
3000

(a) 138
(b) 068
248
(c)
(c)

CAUTION: Ultralights and gliders in vicinity of Hemet-Ryan Arpt.

HEMET-RYAN ARPT

PERRIS VALLEY ARPT
5720
4604
BOGLE
RIV
11
138°
318°
RIV
18
2811
3725
ZALUR
RIV
19
3103
4717

CAUTION: Ultralights, balloons, parachutists in vicinity of Perris Valley Arpt.

HUGDI
RIV
28

20 NM

318°
6082
Max holding alt FL240
Max holding 265 KIAS
138°
318°
6672
5699
RIV
53
R-138

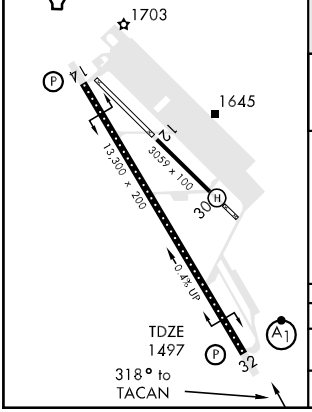
OCEANSIDE
115.3 OCN
Chan 100

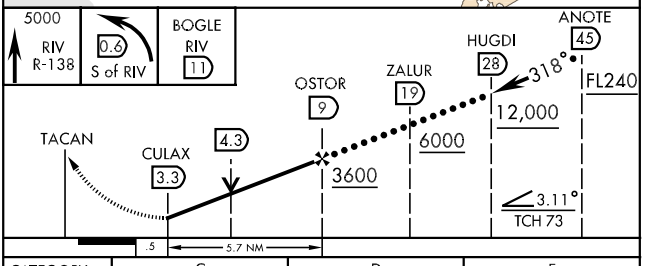
R-075

(IAF)
ANOTE
RIV
45

EMERG SAFE ALT 100 NM
13,800 FROM "RIV" TACAN

ELEV 1536
TDZL/CL Rwy 32
HIRL Rwy 14-32





CATEGORY	C	D	E
S-32 *	2040/50 543 (600-1)	2040/60 543 (600-1¼)	2040-1½ 543 (600-1½)
CIRCLING **	2260-2 724 (800-2)	2260-2¼ 724 (800-2¼)	2800-3 1264 (1300-3)

HI-VOR RWY 32

MARCH ARB (KRIV)

VOR HDF	APCH CRS	Rwy Idg / TDZE / Arpt Elev
113.4	315°	13,300 / 1497 / 1536

JAL-348 [USAF]

* When ALS inop, increase CAT C vis to 1½ miles, CAT D vis to 1¾ miles and CAT E vis to 2 miles.
** Circling not authorized NE of Rwy 14-32. Rapid rising terrain.

ALSF-1

MISSED APPROACH: Climb on HDF VOR R-315 to 5000. Crossing the PDZ VORTAC R-080 turn left direct HDF, continue climb in hold to 5000.

ATIS	SOCAL APP CON	MARCH TOWER	GND CON	CLNC DEL
134.75 239.05	134.0 278.3	127.65 253.5	121.75 335.8	121.75 335.8

PARADISE
112.2 PDZ
Chan 59

HOMELAND
113.4 HDF

OCEANSIDE
115.3 OCN
Chan 100

JULIAN
114.0 JLI
Chan 87

PERRIS VALLEY ARPT

HEMET-RYAN ARPT

COMGA/ RADAR Fix

WAYLE/ RADAR

WAREK/ RADAR

R-315 2651
R-080 1951 1771 1958 2821 2686 2483
135° 315° R-303 R-020 R-034 R-135 303° R-076 R-123
20 NM

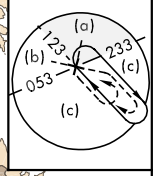
Max holding alt 6000
Min holding alt 5000

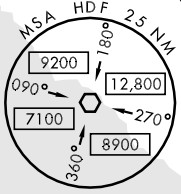
Max holding 265 KIAS
Max holding alt FL240

5720 4604 3725 2811 3178 4678 6292 6672 5798 10,834

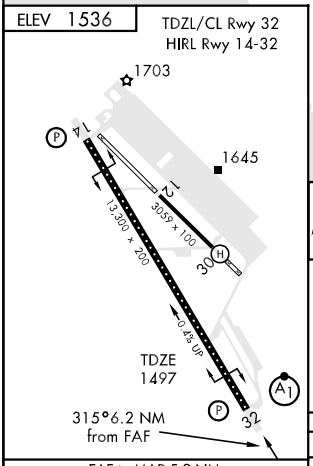
CAUTION: Ultralights, balloons, parachutists in vicinity of Perris Valley Arpt.

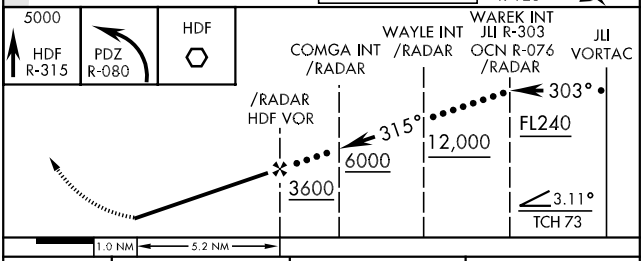
CAUTION: Ultralights and gliders in vicinity of Hemet-Ryan Arpt.





EMERG SAFE ALT 100 NM
13,800 FROM "HDF" VOR





FAF to MAP 5.2 NM					
Knots	120	140	160	180	200
Min:Sec	2:36	2:14	1:57	1:44	1:34

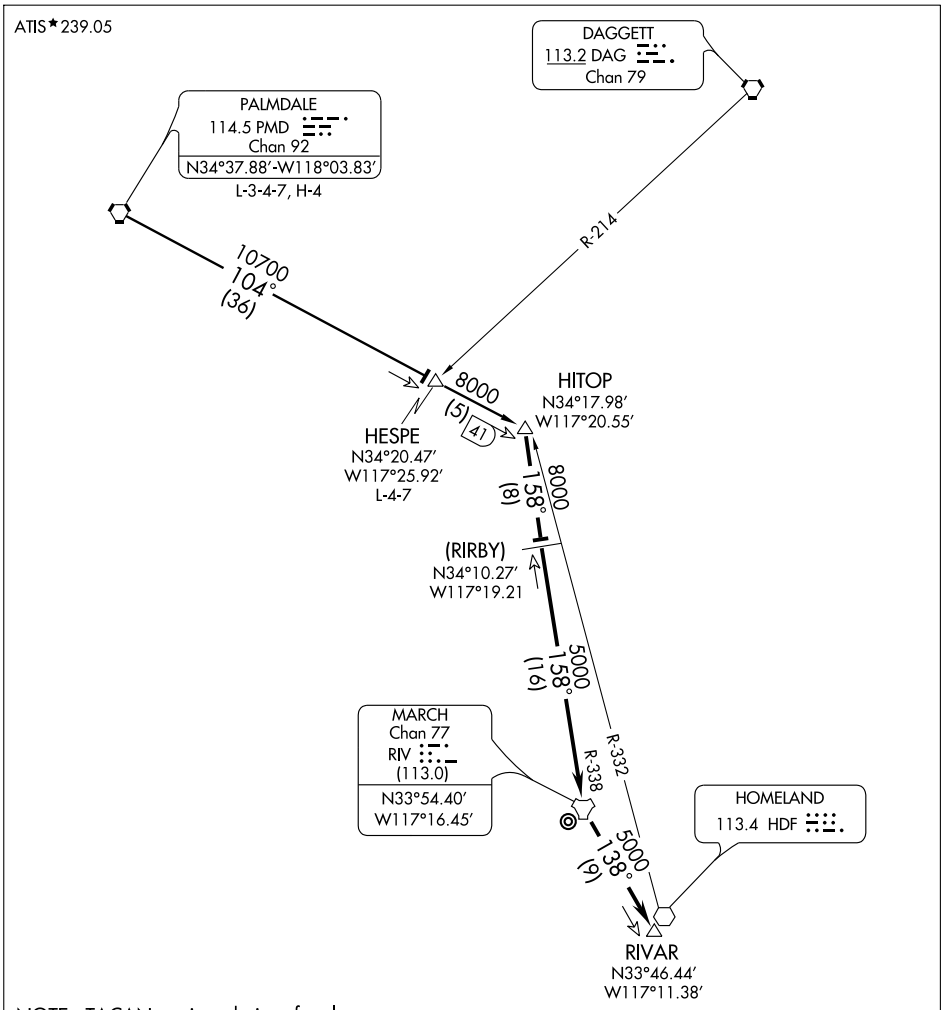
CATEGORY	C	D	E
S-32 *	2040/50 543 (600-1)	2040/60 543 (600-1¼)	2040-1½ 543 (600-1½)
CIRCLING **	2260-2 724 (800-2)	2260-2¼ 724 (800-2¼)	2800-3 1264 (1300-3)

SW-3, 14 JAN 2010 to 11 FEB 2010

HITOP ONE ARRIVAL

ST-348 (FAA)

MARCH ARB
RIVERSIDE, CALIFORNIA



NOTE: TACAN equipped aircraft only.

NOTE: Chart not to scale.

HESPE TRANSITION (HESPE.HITOP1): From over HESPE INT via PMD R-104 to HITOP INT. Thence . . . .

PALMDALE TRANSITION (PMD.HITOP1): From over PMD VORTAC via PMD R-104 to HITOP INT. Thence . . . .

. . . . From over HITOP INT via RIV R-338 to RIV TACAN. Thence via RIV R-138 to RIVAR DME. Expect radar vectors to final approach course.

SW-3, 14 JAN 2010 to 11 FEB 2010

ILS Y or LOC RWY 32

LOC I-RIV 110.1	APCH CRS 315°	Rwy ldg 13,300 TDZE 1497 Arpt Elev 1536	AL-348 [USAF]	MARCH ARB (KRIV)

* When ALS inop, increase CAT A-E RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT A-B RVR to 50 and vis to 1, CAT C-D RVR to 60 and vis is to 1¼, CAT E vis to 1½.
*** Circling not authorized NE of Rwy 14-32. Rapid rising terrain.

ALSF-1 (A1)

MISSED APPROACH: Climb on HDF VOR R-315 to 5000. Crossing PDZ VORTAC R-078 turn left direct HDF continue climb in hold to 5000.

ATIS	SOCAL APP CON	MARCH TOWER	GND CON	CLNC DEL
134.75 239.05	134.0 278.3	127.65 253.5	121.75 335.8	121.75 335.8

RIV DME paired VHF freq 113.0

PARADISE 112.2 PDZ Chan 59

MARCH Chan 77 RIV
N33°54.39' W117°16.50'

LOCALIZER 110.1 I-RIV

R-078

M.S.A HDF 2.5 NM
180°
9200
090°
12,800
7100
270°
8900
360°

1951
1679
2553
2657
1874
1632
2671
1958
2483

CAUTION: Ultralights, balloons, parachutists in vicinity of Perris Valley Arpt.

PERRIS VALLEY ARPT

10 NM

Max holding alt 6000 Min holding alt 5000

135°
315°

CAUTION: Ultralights and gliders in vicinity of Hemet-Ryan Arpt.

HEMET-RYAN ARPT

2696

DEGNE RIV 9.2 /RADAR

HOMELAND 113.4 HDF

MIRLE

2811

3000
5720
4604

EMERG SAFE ALT 100 NM 13,800 FROM HDF VOR

R-014
R-021
R-135

Max holding alt 8300 Min holding alt 7300

IAF ARKOE

3725

OCEANSIDE 115.3 OCN Chan 100

ELEV 1536

TDZL/CL Rwy 32
HIRL Rwy 14-32

1703
1645
13,500 × 200
3059 × 100
0.48% up
TDZE 1497
315°6.4 NM from FAF

5000
HDF R-315
PDZ R-078
HDF
DEGNE RIV 9.2 /RADAR
MIRLE OCN R-014
ARKOE OCN R-021
7300
RIV 3.9
KIMDE RIV 3.3
TACAN
3600
5400
315°
GS 3.00°
TCH 59
0.5
5.9 NM

CATEGORY	A	B	C	D	E
S-ILS 32 *	1697/18 200 (200-½)		1697/24 200 (200-½)		
S-LOC 32 **	1920/24 423 (400-½)		1920/40 423 (400-¾)		1920/50 423 (400-1)
CIRCLING ***	2180-1 644 (700-1)	2220-1 684 (700-1)	2260-2 724 (800-2)	2260-2¼ 724 (800-2¼)	2800-3 1264(1300-3)

FAF to MAP 5.9 NM					
Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

ILS Y RWY 32 (CAT II)

MARCH ARB (KRIV)

AL-348 [USAF]

LOC I-RIV	APCH CRS	Rwy Idg / TDZE / Arpt Elev
110.1	315°	13,300 / 1497 / 1536

ALSF-1

MISSED APPROACH: Climb on HDF VOR R-315 to 5000. Crossing PDZ VORTAC R-078 turn left direct HDF continue climb in hold to 5000.

ATIS	SOCAL APP CON	MARCH TOWER	GND CON	CLNC DEL
134.75 239.05	134.0 278.3	127.65 253.5	121.75 335.8	121.75 335.8

RIV DME paired VHF freq 113.0

PARADISE
112.2 PDZ
Chan 59

MARCH
Chan 77 RIV
N33°54.39' W117°16.50'

LOCALIZER 110.1
I-RIV

R-078

CAUTION:
Ultralights, balloons, parachutists in vicinity of Perris Valley Arpt.

MSA HDF 2.5 NM
180°
9200
090°
12,800
7100
270°
8900
360°

DEGNE
RIV 9.2
/RADAR

CAUTION:
Ultralights and gliders in vicinity of Hemet-Ryan Arpt.

PERRIS VALLEY ARPT

HEMET-RYAN ARPT

10 NM

HOMELAND
113.4 HDF

Max holding alt 6000
Min holding alt 5000

MIRLE

Max holding alt 8300
Min holding alt 7300

IAF
ARKOE

R-014

R-021

OCEANSIDE
115.3 OCN
Chan 100

EMERG SAFE ALT 100 NM 13,800 FROM HDF VOR

ELEV 1536

TDZL/CL Rwy 32
HIRL Rwy 14-32

13,300 x 200

3059 x 100

0.4% UP

TDZE
1497

1703
1645
1586
1494

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

5000
HDF
R-315

PDZ
R-078

HDF

DEGNE
RIV 9.2
/RADAR

MIRLE
OCN R-014

ARKOE
OCN R-021

TACAN

DH
RA 119

IM

1490 MSL
1488 MSL

3600
7300
5400
3600
315°
GS 3.00°
TCH 59

1119'
1031
359°
6.2 NM

CATEGORY	A	B	C	D	E
S-ILS 32	RA 118/12		100	DA 1597	

SW-3, 14 JAN 2010 to 11 FEB 2010

ILS Z or LOC/DME RWY 32

LOC I-RIV	APCH CRS	Rwy ldg 13,300 / TDZE 1497 / Arpt Elev 1536
110.1	315°	

AL-348 [USAF]

MARCH ARB (KRIV)

▼ * When ALS inop, increase CAT A-E RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT CD RVR to 60 and vis to 1¼ mile, CAT E vis to 1½ mile.

ALSF-1

MISSED APPROACH: Climb direct RIV TACAN, then turn left to intercept RIV R-138 direct BOGLE, continue climb in hold to 5000.

ATIS	SOCAL APP CON	MARCH TOWER	GND CON	CLNC DEL
134.75 239.05	134.0 278.3	127.65 253.5	121.75 335.8	121.75 335.8

*** Circling not authorized NE of RWY 14-32. Rapidly rising terrain.

MARCH
Chan 77 RIV

LOCALIZER 110.1
I-RIV

MSA RIV 25 NM
200°
10,700
12,800
290°
020°
6600

1951
1679
1874
1632
1958
2483

DEGNE
RIV
/RADAR
9.2
2811

CAUTION:
Ultralights and gliders in vicinity of Hemet-Ryan Arpt.

PERRIS VALLEY ARPT

10 NM

2696

HEMET-RYAN ARPT

138°

BOGLE
RIV
11

DEHAM
RIV
15.2

315°

5720
3000
4604

CAUTION:
Ultralights, balloons, parachutists in vicinity of Perris Valley Arpt.

Max holding
alt 6000
Min holding
alt 5000

318°

RIV
18

2811

Max holding
alt 8300
Min holding
alt 7300

135°

EMERG SAFE ALT 100 NM 13,800
FROM "RIV" TACAN

(IAF)
CEMBO
RIV
19

R-138

315°

RIV
26

R-135

3725

ELEV 1536

TDZL/CL Rwy 32
HIRL Rwy 14-32

1703

1645

13,300 × 200

305° × 100

30

0.4% UP

TDZE
1497

315°6.4 NM
from FAF

32

5000
RIV

RIV
R-138

BOGLE
RIV
11

DEGNE
9.2
/RADAR

DEHAM
15.2

RIV R-135
CEMBO
19

3600

315°

7300

5500

TACAN

KIMDE
3.3

3.9

315°

3600

GS 3.00°
TCH 59

0.5

5.9 NM

FAF to MAP 5.9 NM					
Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

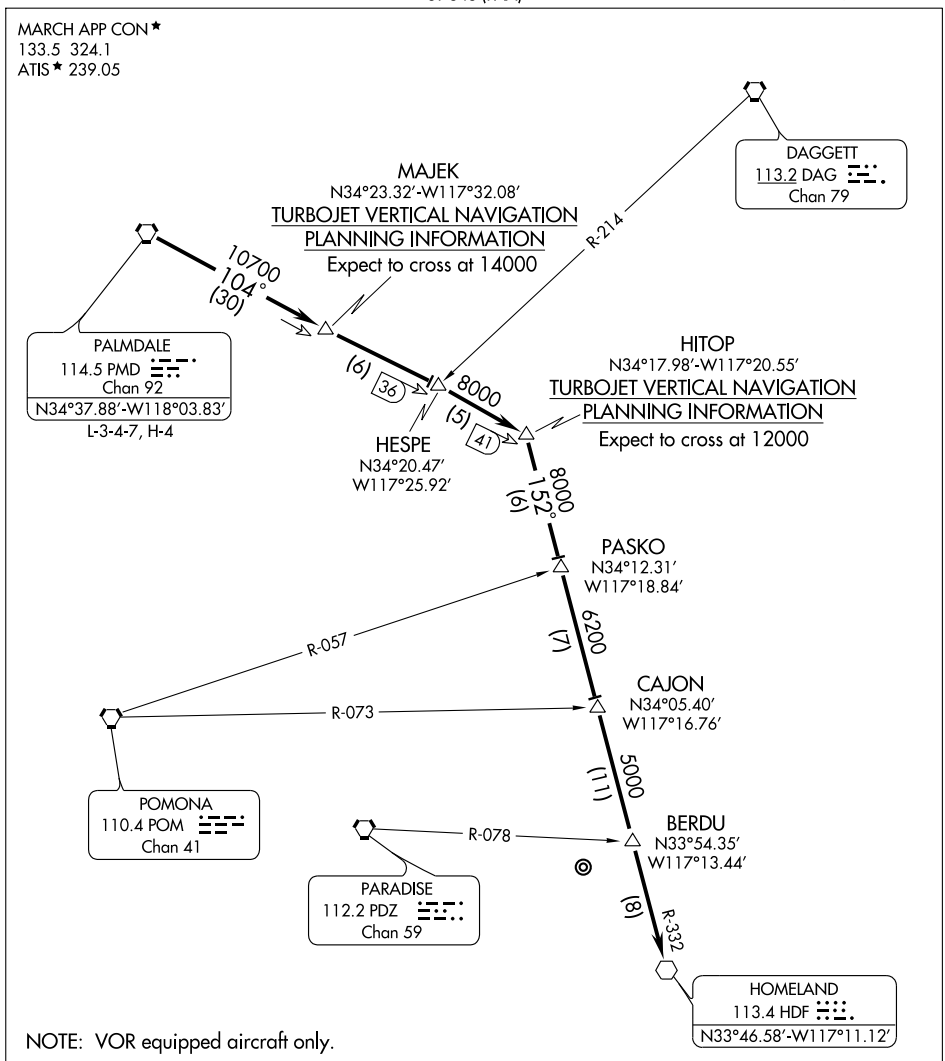
CATEGORY	A	B	C	D	E
S-ILS 32 *	1697/18	200 (200-½)	1697/24	200	(200-½)
S-LOC 32 **	1920/24	423 (400-½)	1920/40	423 (400-¾)	1920/50 423 (400-1)
CIRCLING ***	2180-1	644 (700-1)	2220-1	684 (700-1)	2260-2 724 (800-2)	2260-2¼ 724 (800-2¼)	2800-3 1264(1300-3)

33°53'N-117°16'W

SW-3, 14 JAN 2010 to 11 FEB 2010

MARCH FOUR ARRIVAL

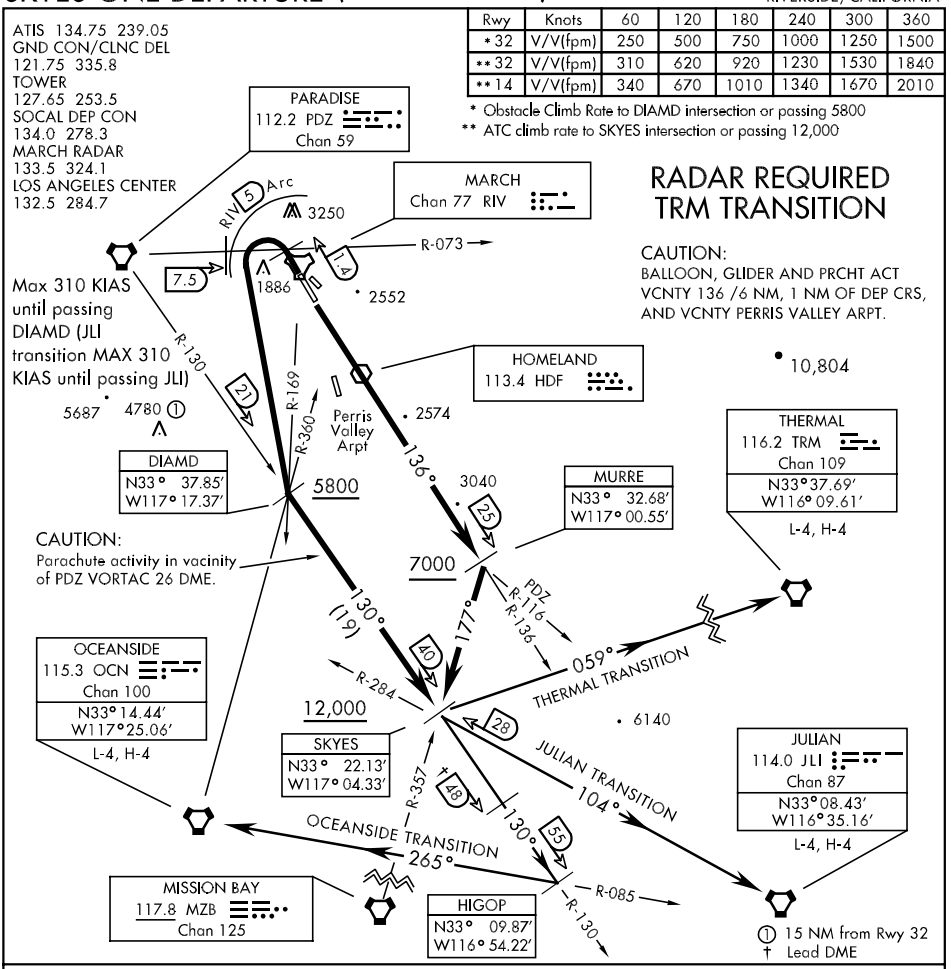
ST-348 (FAA)



NOTE: VOR equipped aircraft only.

NOTE: Chart not to scale.

From over PMD VORTAC via PMD R-104 to HITOP INT. Thence via HDF R-332 to HDF VOR. Expect VOR approach or vector to intercept ILS Rwy 32.



Rwy	Knots	60	120	180	240	300	360
*32	V/V(fpm)	250	500	750	1000	1250	1500
**32	V/V(fpm)	310	620	920	1230	1530	1840
**14	V/V(fpm)	340	670	1010	1340	1670	2010

* Obstacle Climb Rate to DIAMD intersection or passing 5800
** ATC climb rate to SKYES intersection or passing 12,000

RADAR REQUIRED TRM TRANSITION

CAUTION:
BALLOON, GLIDER AND PRCHT ACT VCNTY 136 /6 NM, 1 NM OF DEP CRS, AND VCNTY PERRIS VALLEY ARPT.

SW-3, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 14: Climb via RIV TACAN R-136 or climb direct HDF VOR, then via HDF R-136 to MURRE, intercept MZB VORTAC R-357 to SKYES, Cross MURRE at or above 7000, and SKYES at or above 12,000. Thence via transition or assigned route.

TAKE-OFF RWY 32: Climb on track 315°, then turn left crossing PDZ VORTAC R-073/RIV TACAN 1.4 DME direct DIAMD, proceed no closer than 7.5 DME PDZ. Remain within 5 DME RIV. Cross DIAMD at or above 5800. Intercept PDZ R-130 to SKYES, cross SKYES at or above 12,000. Thence via transition or assigned route.

JULIAN TRANSITION (SKYES 1 • JLI): JLI VORTAC R-284 direct JLI. MAX 310 KIAS until passing JULIAN VORTAC

OCEANSIDE TRANSITION (SKYES 1 • OCN): Via SKYES direct HIGOP intercept OCN VORTAC R-085 to OCN.

THERMAL TRANSITION (SKYES 1 • TRM): TRM VORTAC bearing 059° to TRM (Radar required)

TACAN RWY 14

TACAN	RIV
Chan	77

APCH CRS
106°

Rwy ldg	13,300
TDZE	1536
Arpt Elev	1536

AL-348 [USAF]

MARCH ARB (KRIV)

▼ * Circling not authorized NE of Rwy 14-32. Rapid rising terrain.

MISSED APPROACH: Climb out RIV TACAN R-138 direct BOGLE, continue climb in hold to 5000.

ATIS	SOCAL APP CON	MARCH TOWER	GND CON	CLNC DEL
134.75 239.05	134.0 278.3	127.65 253.5	121.75 335.8	121.75 335.8

(IAF) SAKQU RIV 11 2365

R-286

106°

JEGEX RIV 5

MARCH Chan 77 RIV

CAUTION: Do not land on closed rwy in close proximity to Rwy 14 threshold.

1813
1932
1951
1874
1958
2483

R-138

PERRIS VALLEY ARPT

10 NM

2801

BOGLE RIV 11

138°

318°

RIV 18

Min holding alt 5000
Max holding alt 6000

CAUTION: Ultralights, balloons, parachutists in vicinity of Perris Valley Arpt.

CAUTION: Ultralights and gliders in vicinity of Hemet-Ryan Arpt.

HEMET-RYAN ARPT

MSA RIV 25 NM
200°
10,700
12,800
290°
020°
6600

3000
6000
9324

5720
4604

EMERG SAFE ALT 100 NM 13,800

ELEV 1536

106° to TACAN

1703

1645

TDZE 1536

13,300 x 100

3059 x 100

13,300 x 200

0.4% UP

TDZL/CL Rwy 14-32
HIRL Rwy 14-32

SAKQU R-286 11 4500

JEGEX 5

106°

3100

2.59° TCH 56

1.8

MEKIE 1

TACAN

4.0 NM 1.0 0.5

5000 RIV R-138

BOGLE RIV 11

CATEGORY	A	B	C	D	E
S-14	2200-2 664 (700-2)				2200-2¼ 664 (700-2¼)
CIRCLING*	2200-2 664 (700-2)	2220-2 684 (700-2)	2260-2 724 (800-2)	2260-2¼ 724 (800-2¼)	2800-3 1264 (1300-3)

TACAN RWY 32

TACAN	APCH CRS	Rwy ldg	TDZE	Arpt Elev
RIV Chan 77	318°	13,300	1497	1536

AL-348 [USAF]

MARCH ARB (KRIV)

*When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C vis to 1½ miles, CAT D vis to 1¾ and CAT E vis to 2.
** Circling not authorized NE of Rwy 14-32.
Rapid rising terrain.

ALSF-1

MISSED APPROACH: Climb on RIV TACAN R-138 to 5000. At 0.6 DME South of RIV, turn left to intercept RIV R-138 direct BOGLE. Continue climb in hold to 5000.

ATIS	SOCAL APP CON	MARCH TOWER	GND CON	CLNC DEL
134.75 239.05	134.0 278.3	127.65 253.5	121.75 335.8	121.75 335.8

MARCH
Chan 77 RIV

MSA RIV 25 NM
200°
10,700
12,800
290°
020°
6600

1951
1874
1958
2683
2483
1640
2811
OSTOR RIV 9
PERRIS VALLEY ARPT
10 NM
3000
5720
4604
3725
EMERG SAFE ALT 100 NM 13,800

CAUTION: Ultralights and gliders in vicinity of Hemet-Ryan Arpt.

HEMET-RYAN ARPT

BOGLE RIV 11
2696
138°
Min holding alt 5000
Max holding alt 6000

CAUTION: Ultralights, balloons, parachutists in vicinity of Perris Valley Arpt.

AKOME RIV 15
318°
RIV 18
2803
(IAF) ZALUR RIV 19
138°
318°
Min holding alt 7300
Max holding alt 8300
RIV 26
R-138

ELEV 1536
TDZL/CL Rwy 32
HIRL Rwy 14-32
1703
1645
13,300 x 200
3059 x 100
0.4% up
TDZE 1497
318° to TACAN

5000
RIV R-138
0.6 S of RIV
BOGLE RIV 11

ZALUR 19
7300
AKOME 15
OSTOR 9
318°
TACAN
CULAX
4.3
3.3
5400
3600
3.11°
TCH 73
.5
5.7 NM

CATEGORY	A	B	C	D	E
S-32 *	2040/24 543 (600-½)		2040/50 543 (600-1)	2040/60 543 (600-1¼)	2040-1½ 543 (600-1½)
CIRCLING **	2180-1 644 (700-1)	2220-1 684 (700-1)	2260-2 724 (800-2)	2260-2¼ 724 (800-2¼)	2800-3 1264(1300-3)

VOR RWY 32

VOR HDF 113.4	APCH CRS 315°	Rwy ldg 13,300 TDZE 1497 Arpt Elev 1536

AL-348 [USAF]

MARCH ARB (KRIV)

▼* When ALS inop, increase CAT AB RVR to 60 and vis to 1¼ miles, CAT C vis to 1½ miles, CAT D vis to 1¾ miles, CAT E vis to 2 miles.
** Circling not authorized NE of Rwy 14-32. Rapid rising terrain.

ALSF-1 (A1)

MISSED APPROACH: Climb on HDF VOR R-315 to 5000. Crossing PDZ VORTAC R-080 turn left direct HDF continue climb in hold to 5000.

ATIS	SOCAL APP CON	MARCH TOWER	GND CON	CLNC DEL
134.75 239.05	134.0 278.3	127.65 253.5	121.75 335.8	121.75 335.8

PARADISE
112.2 PDZ
Chan 59

R-315
R-080
2651
1951
1874
1958
1771
2657
2821
2568
2483
2686
3000
4604
4678
4717
3178

MSA HDF 25 NM
180°
9200
12,800
090°
270°
7100
8900
360°

CAUTION:
Ultralights, balloons, parachutists in vicinity of Perris Valley Arpt.

PERRIS VALLEY ARPT

Max holding alt 6000
Min holding alt 5000

HEMET-RYAN ARPT

CAUTION:
Ultralights and gliders in vicinity of Hemet-Ryan Arpt.

IAF
HOMELAND
113.4 HDF

135°
315°
090°
270°
R-135

EMERG SAFE ALT 100 NM 13,800

10 NM

ELEV 1536

TDZL/CL Rwy 14-32
HIRL Rwy 14-32

1703
1645
13,500 x 200
3659 x 100
0.4% UP
32
30
TDZE 1497
315° 6.2 NM from FAF

VGSI and descent angles not coincident

5000 HDF R-315	Crossing PDZ R-080	HDF

HDF VOR
Remain within 15 NM
5000
135°
5000
315°
3700
3.26°
TCH 73
1.0
5.2 NM

FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

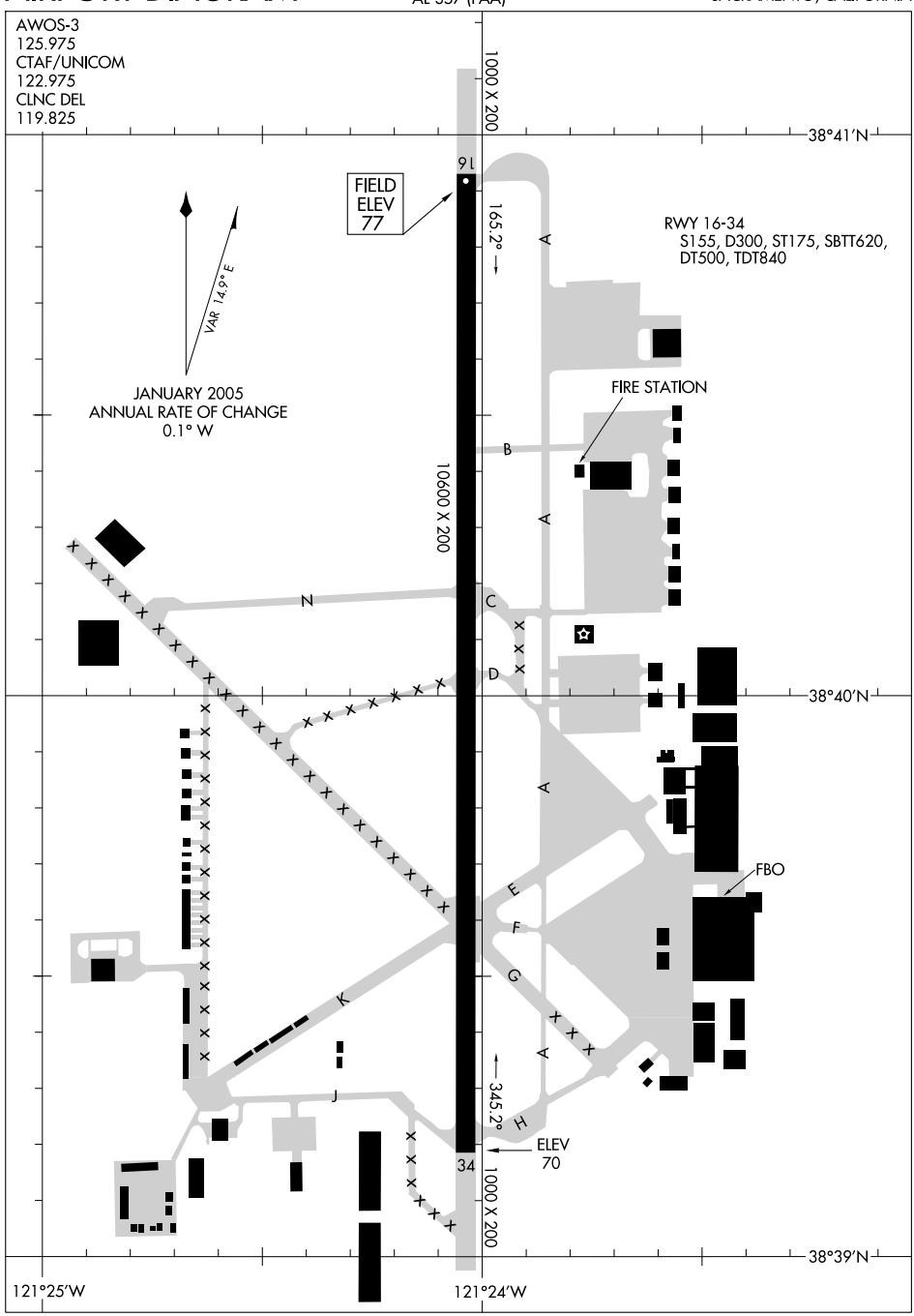
CATEGORY	A	B	C	D	E
S-32 *	2040/40 543	(600-¾)	2040/50 543 (600-1)	2040/60 543 (600-1¼)	2040-1½ 543 (600-1½)
CIRCLING **	2180-1¼ 644 (700-1¼)	2220-1¼ 684 (700-1¼)	2260-2 724 (800-2)	2260-2¼ 724 (800-2¼)	2800-3 1264(1300-3)

09239

AIRPORT DIAGRAM

AL-357 (FAA)

SACRAMENTO/ MC CLELLAN AIRFIELD (MCC)
SACRAMENTO, CALIFORNIA



SW-2, 14 JAN 2010 to 11 FEB 2010

LOC I-MCC	APP CRS	Rwy Idg	10600
109.7	163°	TDZE	75
		Apt Elev	75

ILS RWY 16

SACRAMENTO/ MC CLELLAN AIRFIELD (MCC)

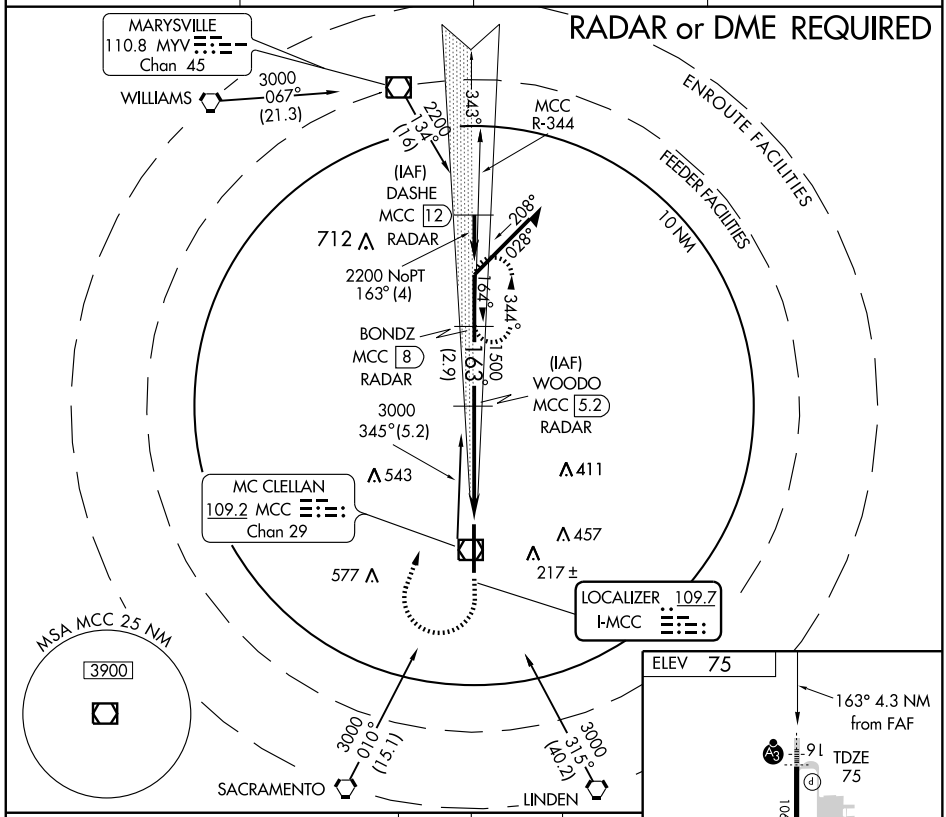
NA If local altimeter setting not received, use Sacramento Intl altimeter setting and increase all DH/MDAs 40 feet. DME from MCC VOR/DME.

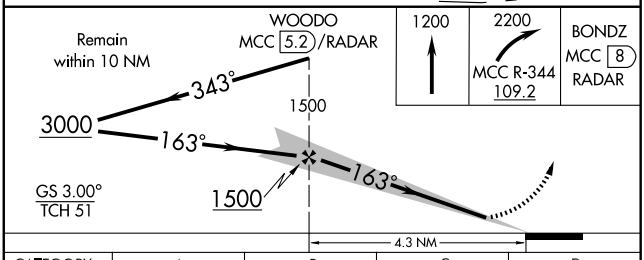
SSALR

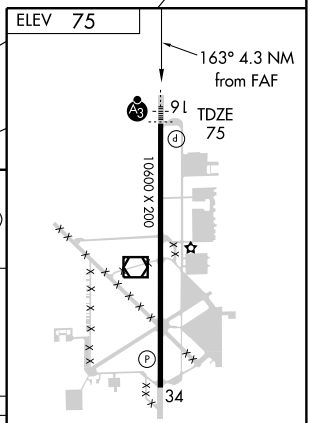
MISSED APPROACH: Climb to 1200 then climbing right turn to 2200 via MCC VOR/DME R-344 to BONDZ/8 DME/RADAR and hold.

AWOS-3	NORCAL APP CON	CLNC DEL	UNICOM
125.975	127.4 317.5	119.825	122.975 (CTAF) L

RADAR or DME REQUIRED







CATEGORY	A	B	C	D
S-ILS 16		275/24 200 (200-½)		
S-LOC 16		460/24 385 (400-½)		460/40 385 (400-¾)
CIRCLING		NA		

FAF to MAP 4.3 NM

Knots	60	90	120	150	180
Min:Sec	4:18	2:52	2:09	1:43	1:26

SW-2, 14 JAN 2010 to 11 FEB 2010

NORCAL DEP CON
127.4 317.5
CLNC DEL
119.825
UNICOM 122.975 (CTAF)

DEPARTURE ROUTE DESCRIPTION

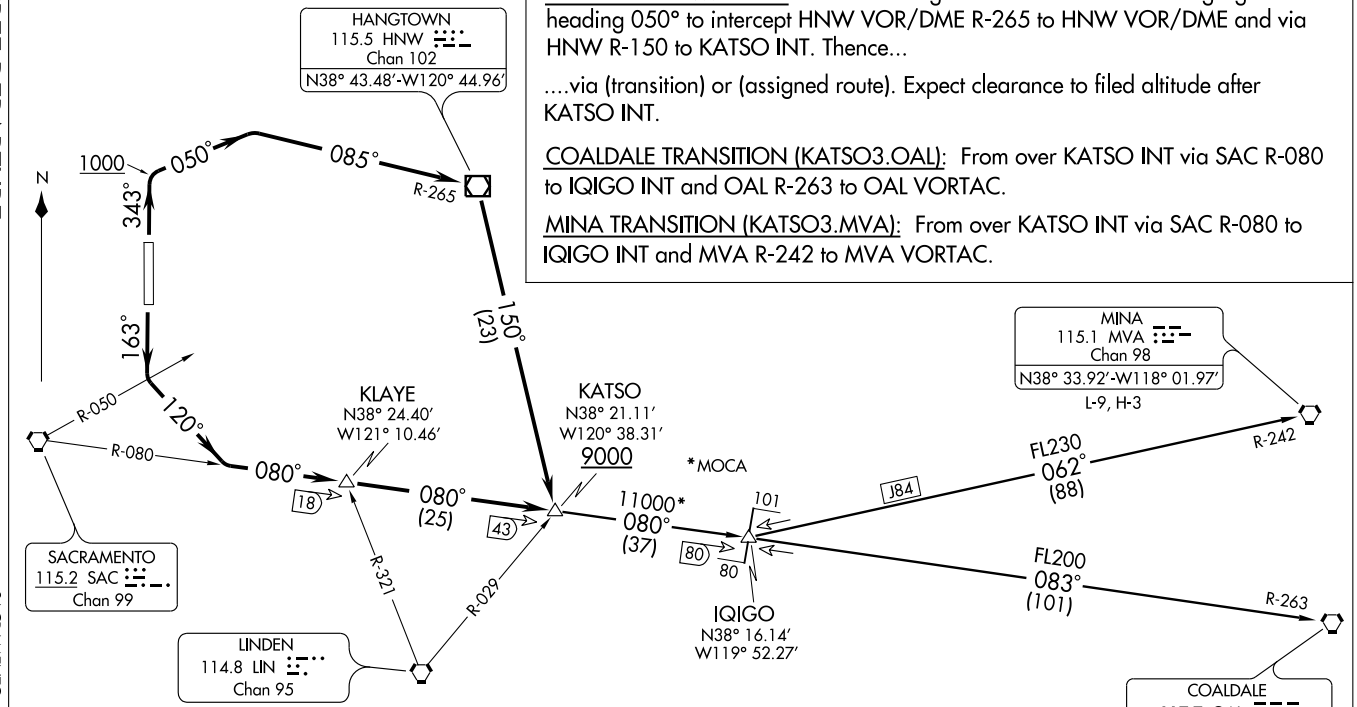
TAKE-OFF RUNWAY 16: Climb heading 163° until crossing SAC VORTAC R-050, and left turn heading 120° to intercept SAC R-080 to KATSO INT. Thence...

TAKE-OFF RUNWAY 34: Climb heading 343° to 1000 then climbing right turn heading 050° to intercept HNW VOR/DME R-265 to HNW VOR/DME and via HNW R-150 to KATSO INT. Thence...

....via (transition) or (assigned route). Expect clearance to filed altitude after KATSO INT.

COALDALE TRANSITION (KATSO3.OAL): From over KATSO INT via SAC R-080 to IQIGO INT and OAL R-263 to OAL VORTAC.

MINA TRANSITION (KATSO3.MVA): From over KATSO INT via SAC R-080 to IQIGO INT and MVA R-242 to MVA VORTAC.

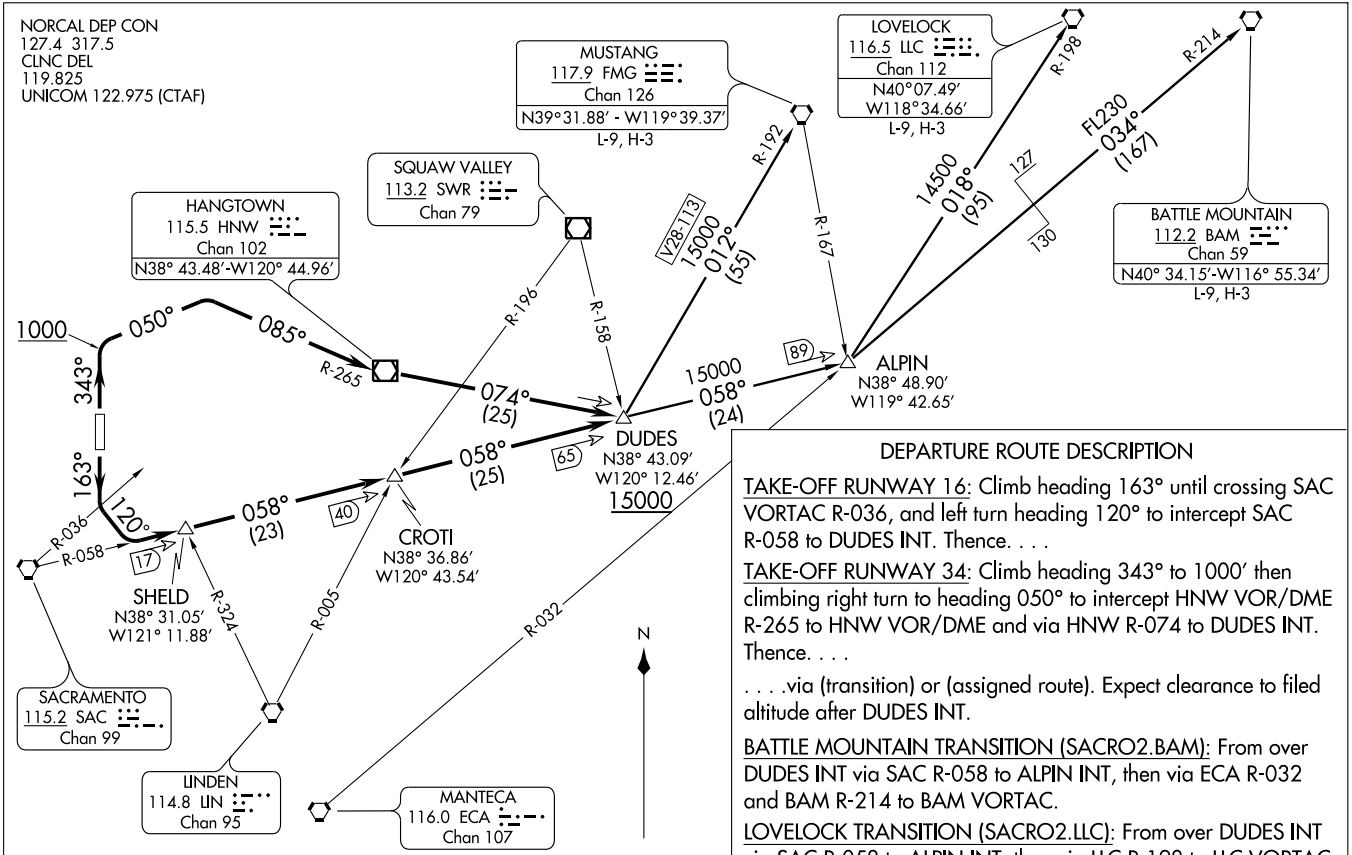


NOTE: DME required for COALDALE and MINA transitions.

NOTE: Chart not to scale.

TAKE-OFF MINIMUMS

Rwy 16, 34: Standard. ATC climb of 205' per NM to 9000.



TAKE OFF MINIMUMS

Rwy 16, 34: standard. ATC climb of 260′ per NM to 15000.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 16: Climb heading 163° until crossing SAC VORTAC R-036, and left turn heading 120° to intercept SAC R-058 to DUDES INT. Thence. . . .

TAKE-OFF RUNWAY 34: Climb heading 343° to 1000′ then climbing right turn to heading 050° to intercept HNW VOR/DME R-265 to HNW VOR/DME and via HNW R-074 to DUDES INT. Thence. . . .

. . . .via (transition) or (assigned route). Expect clearance to filed altitude after DUDES INT.

BATTLE MOUNTAIN TRANSITION (SACRO2.BAM): From over DUDES INT via SAC R-058 to ALPIN INT, then via ECA R-032 and BAM R-214 to BAM VORTAC.

LOVELOCK TRANSITION (SACRO2.LLC): From over DUDES INT via SAC R-058 to ALPIN INT, then via LLC R-198 to LLC VORTAC.

MUSTANG TRANSITION (SACRO2.FMG): From over DUDES INT via FMG R-192 to FMG VORTAC.

VOR/DME MCC	APP CRS	Rwy Idg	10600
109.2	167°	TDZE	75
Chan 29		Apt Elev	75

VOR/DME RWY 16

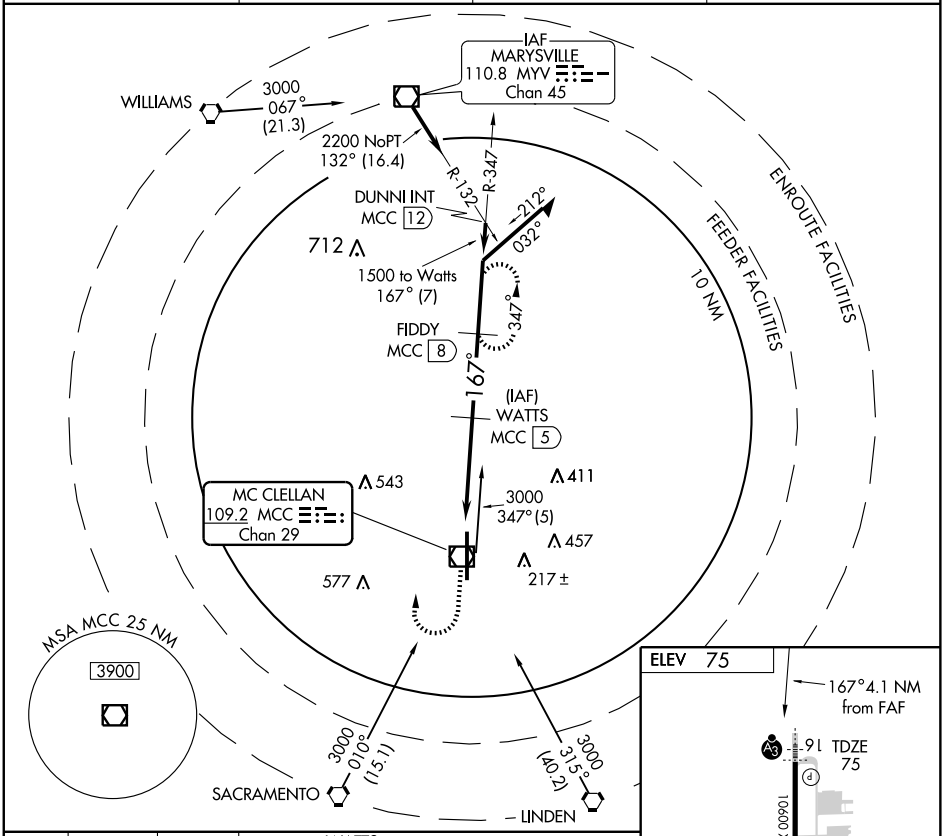
SACRAMENTO/MC CLELLAN AIRFIELD (MCC)

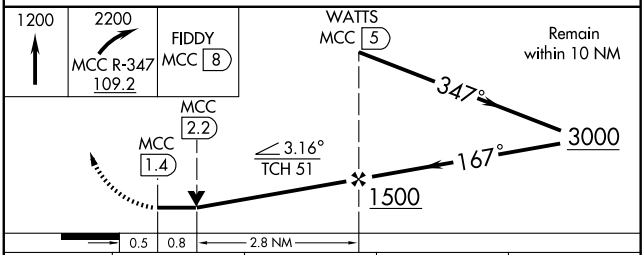
NA If local altimeter setting not received, use Sacramento Intl altimeter setting and increase all MDAs 40 feet. VDP not authorized with Sacramento Intl altimeter setting.

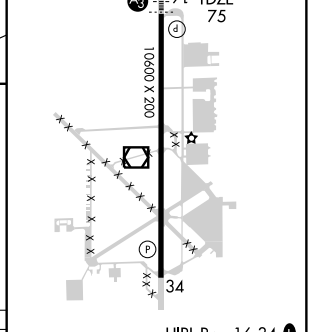
SSALR

MISSED APPROACH: Climb to 1200 then climbing right turn to 2200 via MCC R-347 to FIDDY/8 DME and hold.

AWOS-3	NORCAL APP CON	CLNC DEL	UNICOM
125.975	127.4 317.5	119.825	122.975 (CTAF) L







CATEGORY	A	B	C	D
S-16	540/24 465 (500-½)		540/40 465 (500-¾)	540/50 465 (500-1)
CIRCLING	NA			

Knots	60	90	120	150	180
Min:Sec					

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME MCC	APP CRS	Rwy Idg	10600
109.2	333°	TDZE	70
Chan 29		Apt Elev	75

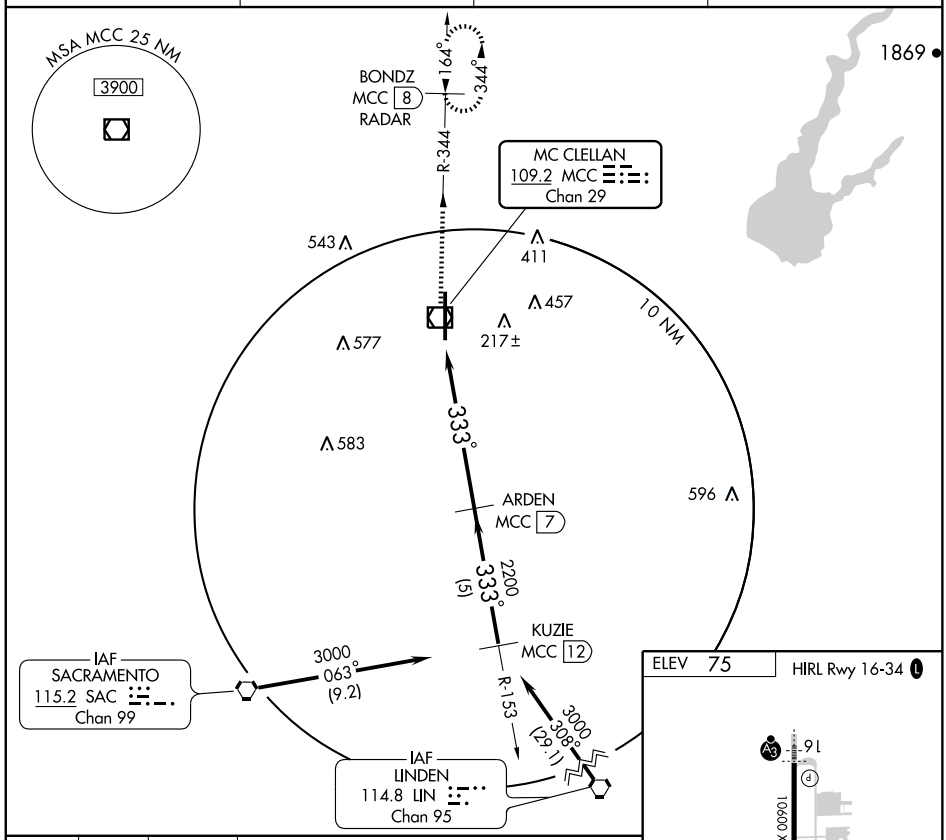
VOR/DME RWY 34

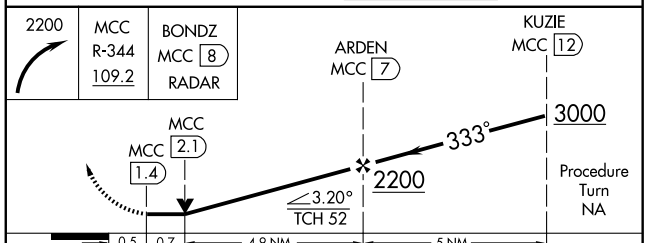
SACRAMENTO/MC CLELLAN AIRFIELD (MCC)

⚠NA If local altimeter setting not received, use Sacramento Intl altimeter setting and increase all MDAs 40 feet.
VDP not authorized with Sacramento Intl altimeter setting.

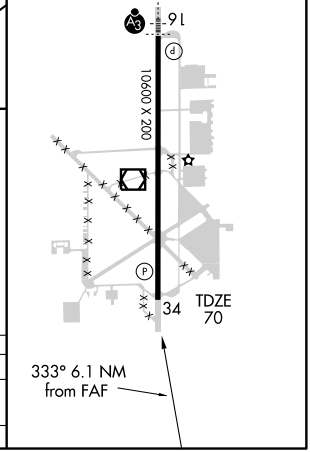
MISSED APPROACH: Climbing right turn to 2200 via MCC R-344 to BONDZ/8 DME/RADAR and hold.

AWOS-3	NORCAL APP CON	CLNC DEL	UNICOM
125.975	127.4 317.5	119.825	122.975 (CTAF) L

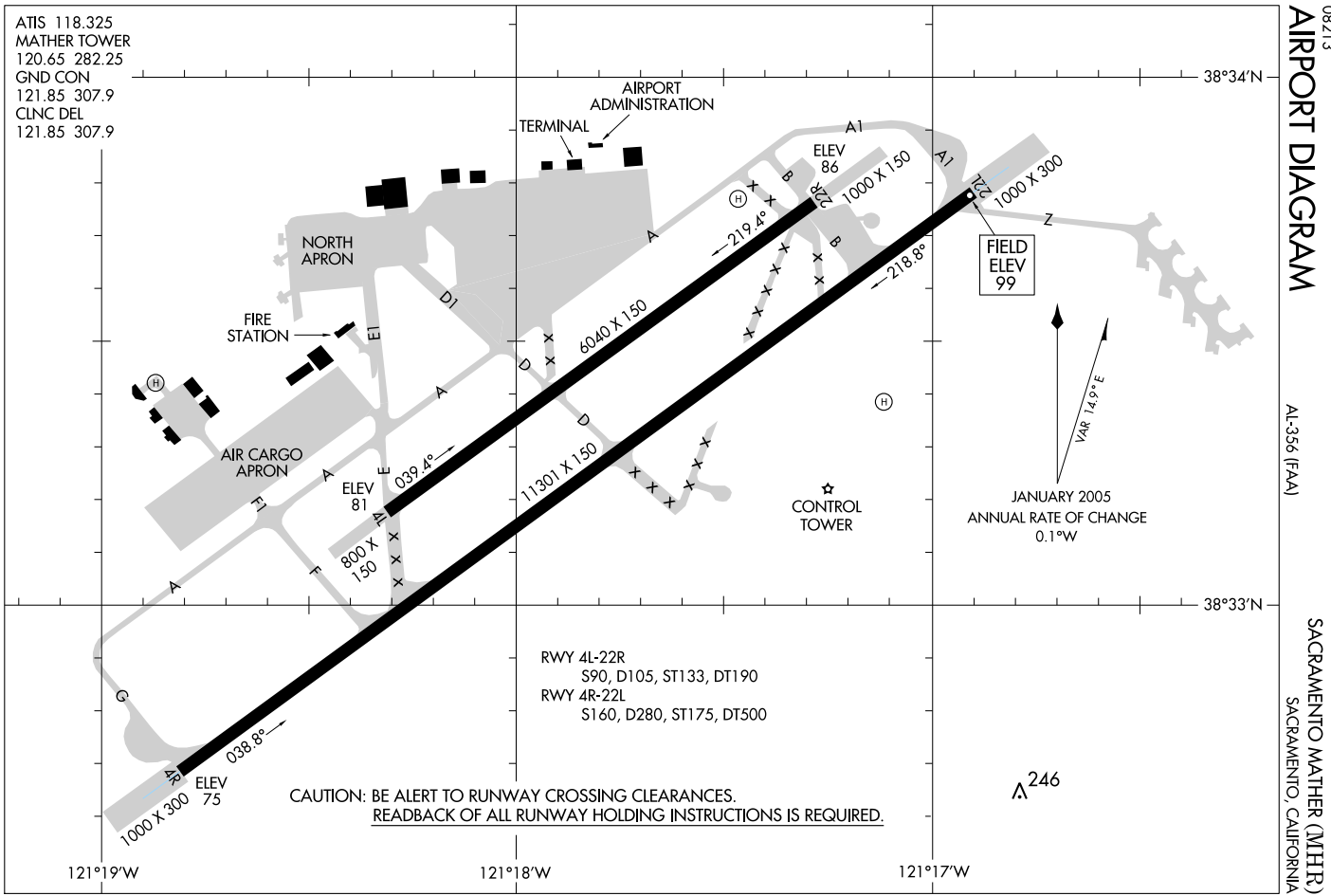




CATEGORY	A	B	C	D
S-34	500-1 430 (500-1)		500-1¼ 430 (500-1¼)	500-1½ 430 (500-1½)
CIRCLING	NA			



SW-2, 14 JAN 2010 to 11 FEB 2010



08213

AIRPORT DIAGRAM

AL-356 (FAA)

SACRAMENTO MATHER (MHR)

SACRAMENTO, CALIFORNIA

SACRAMENTO, CALIFORNIA

AL-356 (FAA)

LOC I-MHR	APP CRS	Rwy Idg	11301
110.7	217°	TDZE	96
		Apt Elev	99

ILS or LOC RWY 22L

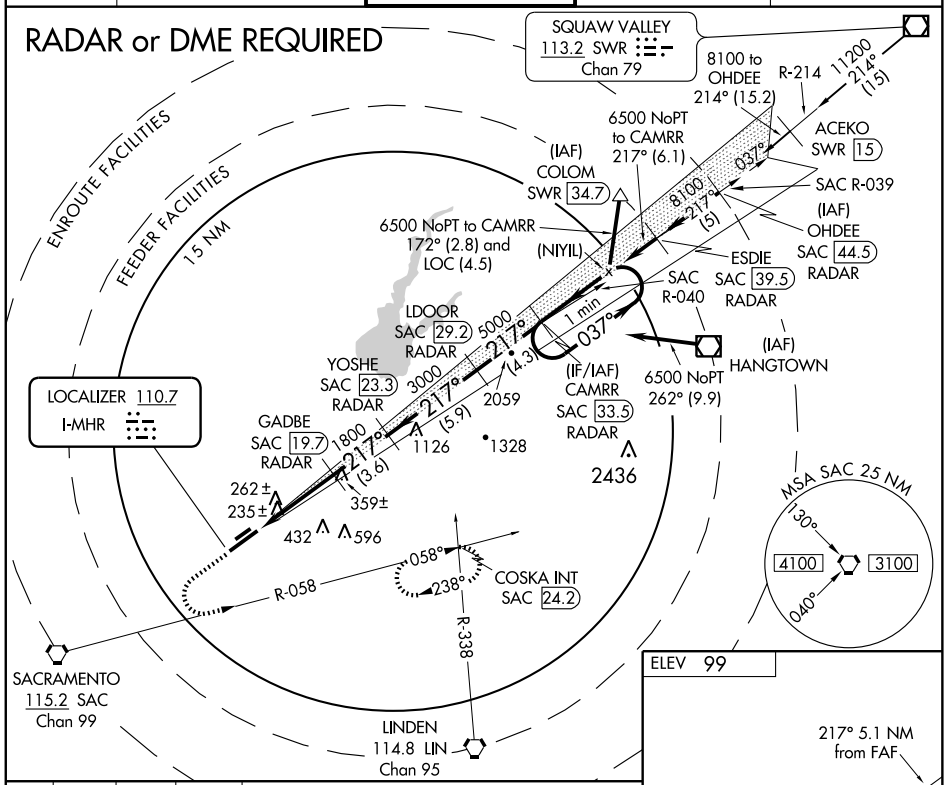
SACRAMENTO MATHER (MHR)

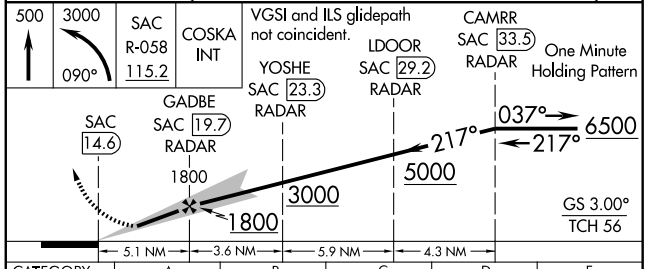
Circling NA north of Rwy 4L-22R.
When ALS inoperative, increase Cat. E ILS 1/4 mile, LOC 1/2 mile.

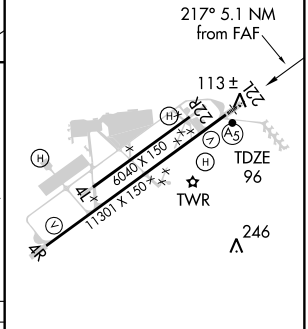
MALSR

MISSED APPROACH: Climb to 500, then climbing left turn to 3000 via heading 090° and SAC R-058 to COSKA INT/ SAC 24.2 DME and hold, continue climb-in-hold to 3000.

ATIS	NORCAL APP CON	MATHER TOWER	GND CON	CLNC DEL
118.325	127.4 317.5	120.65 282.25	121.85 307.9	121.85 307.9







CATEGORY	A	B	C	D	E
S-ILS 22L	296-½ 200 (200-½)				
S-LOC 22L	500-½ 404 (500-½)		500-¾ 404 (500-¾)		500-1 404 (500-1)
CIRCLING	560-1 461 (500-1)		560-1½ 461 (500-1½)	660-2 561 (600-2)	800-2½ 701 (800-2½)

MIRL Rwy 4L-22R
HIRL Rwy 4R-22L

FAF to MAP 5.1 NM

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	11301
CH 45601	037°	TDZE	79
W04A		Apt Elev	99

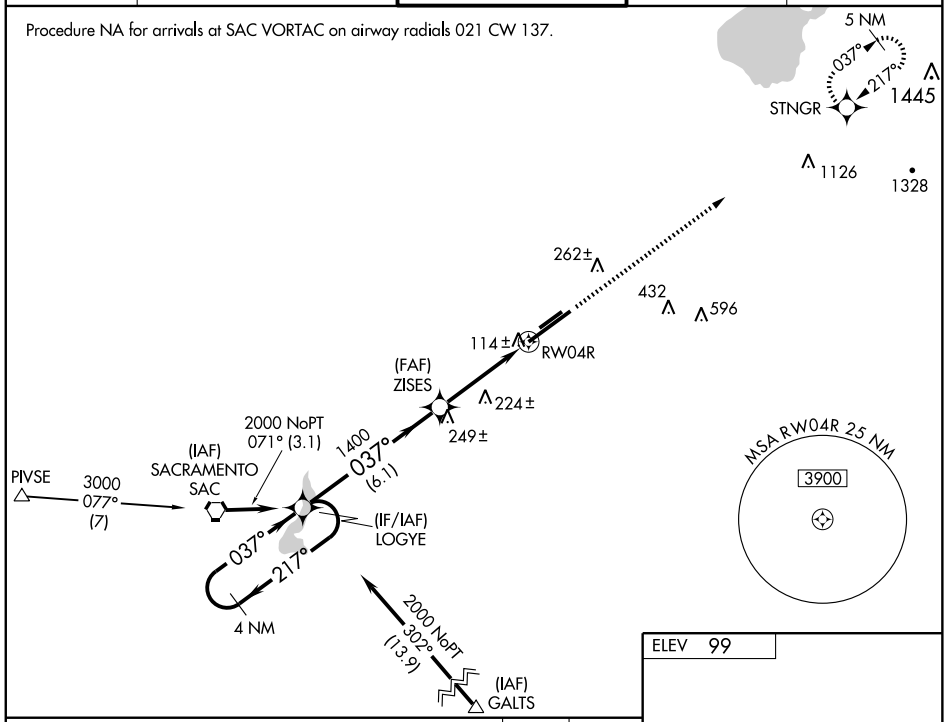
RNAV (GPS) RWY 4R
SACRAMENTO MATHER (MHR)

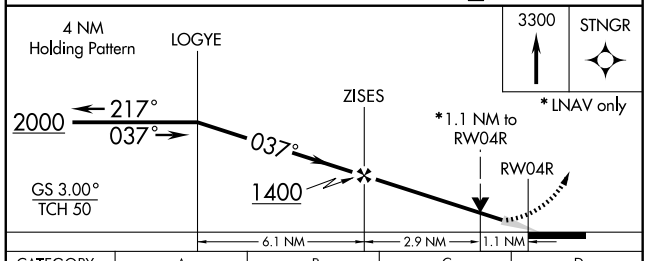
DME/DME RNP- 0.3 NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (119°F).
Circling NA north of Rwy 4L-22R.

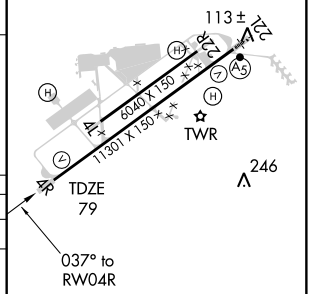
MISSED APPROACH: Climb to 3300 direct STNGR and hold.

ATIS	NORCAL APP CON	MATHER TOWER	GND CON	CLNC DEL
118.325	127.4 317.5	120.65 282.25	121.85 307.9	121.85 307.9

Procedure NA for arrivals at SAC VORTAC on airway radials 021 CW 137.







MIRL Rwy 4L-22R
HIRL Rwy 4R-22L

CATEGORY	A	B	C	D
LPV DA	329-¾ 250 (300-¾)			
LNAV/VNAV DA	373-1 294 (300-1)			
LNAV MDA	480-1 401 (400-1)		480-1¼ 401 (400-1¼)	
CIRCLING	560-1 461 (500-1)		560-1½ 461 (500-1½)	660-2 561 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

RNAV (GPS) RWY 22L

SACRAMENTO MATHER (MHR)

APP CRS	Rwy Idg	11301
217°	TDZE	96
	Apt Elev	99

DME/DME RNP-0.3 NA.
Circling not authorized north of Rwy 4L-22R.
For inoperative MALSR increase LNAV/VNAV Cat. D visibility to 1 mile.

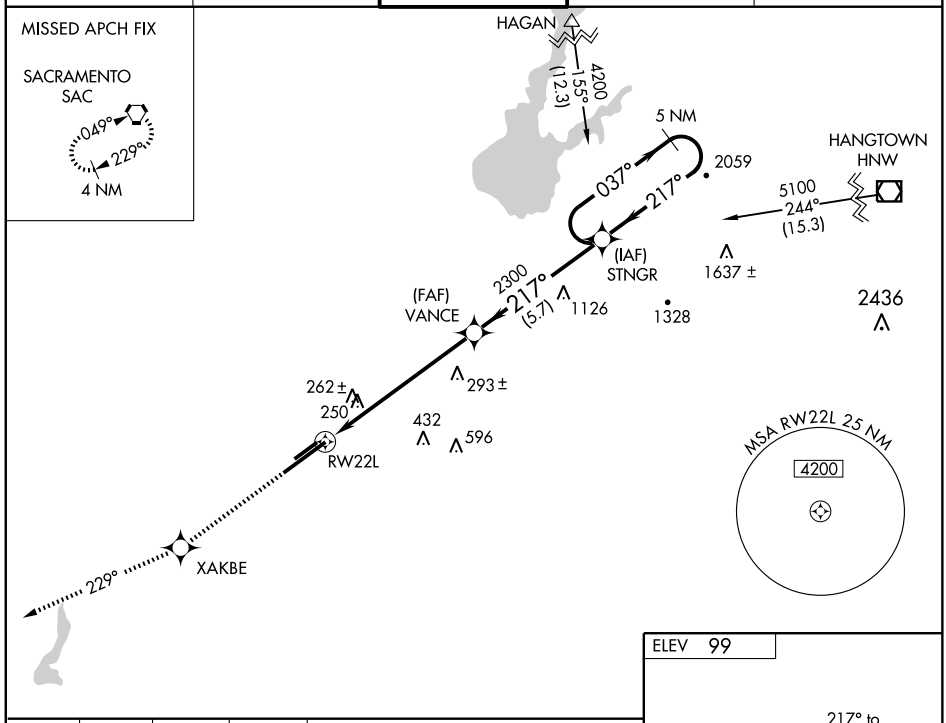
MALSR

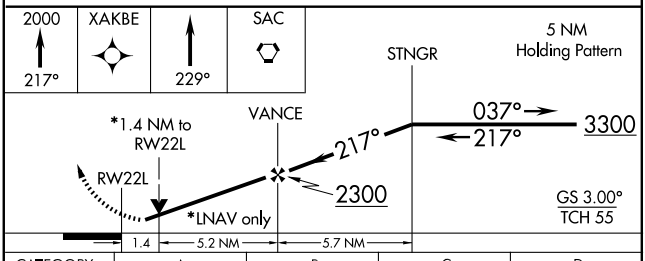
MISSED APPROACH: Climb to 2000 via 217° course to XAKBE WP then via 229° course to SAC VORTAC and hold.

ATIS	NORCAL APP CON	MATHER TOWER	GND CON	CLNC DEL
118.325	127.4 317.5	120.65 282.25	121.85 307.9	121.85 307.9

MISSED APCH FIX

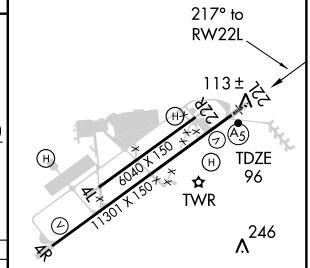
SACRAMENTO
SAC
049°
229°
4 NM





CATEGORY	A	B	C	D
GLS DA	NA			
LNAV/VNAV DA	380-½ 284 (300-½)			380-¾ 284 (300-¾)
LNAV MDA	580-½ 484 (500-½)		580-¾ 484 (500-¾)	580-1 484 (500-1)
CIRCLING	580-1 481 (500-1)		580-1½ 481 (500-1½)	660-2 561 (600-2)

ELEV 99



MIRL Rwy 4L-22R
HIRL Rwy 4R-22L

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC SAC	APP CRS	Rwy Idg	11301
115.2	224°	TDZE	96
Chan 99		Apt Elev	99

VOR/DME RWY 22L

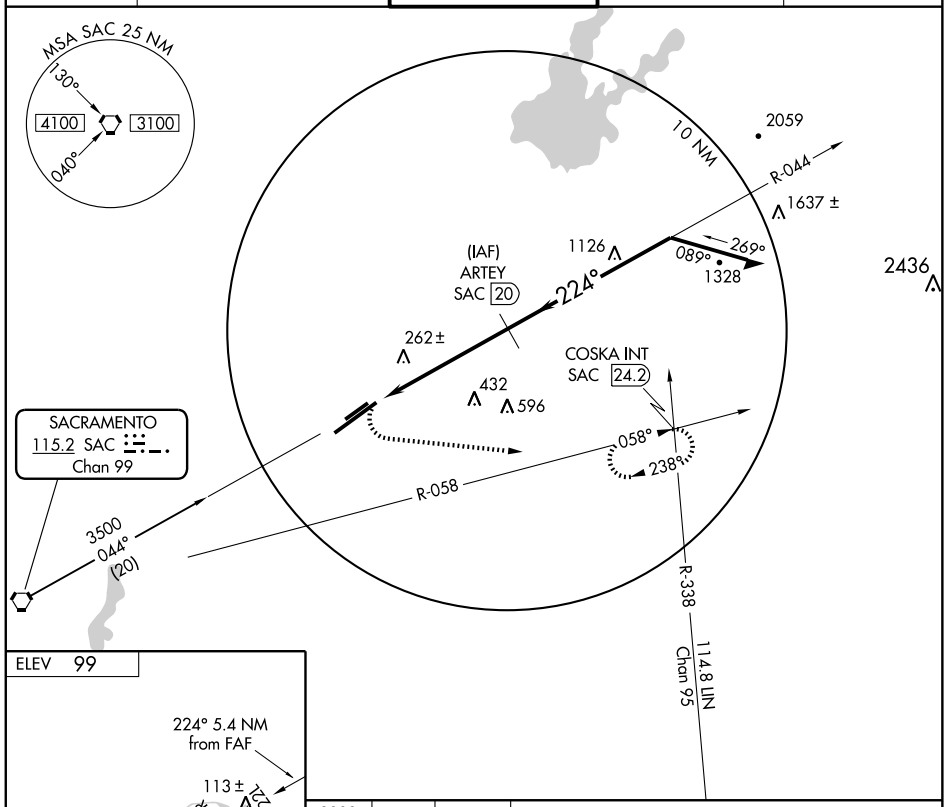
SACRAMENTO MATHER (MHR)

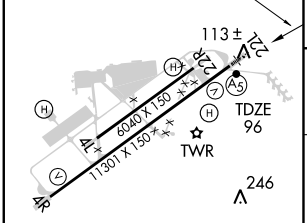
Circling not authorized north of Rwy 4L-22R.

MALSR

MISSED APPROACH: Climbing left turn to 3000 via heading 090° and SAC R-058 to COSKA Int/SAC 24.2 DME and hold.

ATIS	NORCAL APP CON	MATHER TOWER	GND CON	CLNC DEL
118.325	127.4 317.5	120.65 282.25	121.85 307.9	121.85 307.9

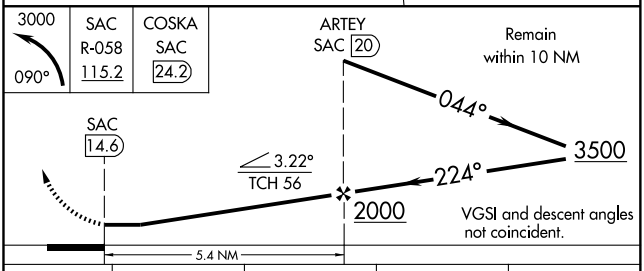




MIRL Rwy 4L-22R
HIRL Rwy 4R-22L

Knots	60	90	120	150	180
Min:Sec					

3000	SAC R-058 115.2	COSKA SAC 24.2
090°		



CATEGORY	A	B	C	D
S-22L	740-½ 644 (700-½)		740-1¼ 644 (700-1¼)	740-1½ 644 (700-1½)
CIRCLING	740-1 641 (700-1)		740-1¾ 641 (700-1¾)	740-2 641 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC SAC	APP CRS	Rwy Idg	11301
115.2	045°	TDZE	79
Chan 99		Apt Elev	99

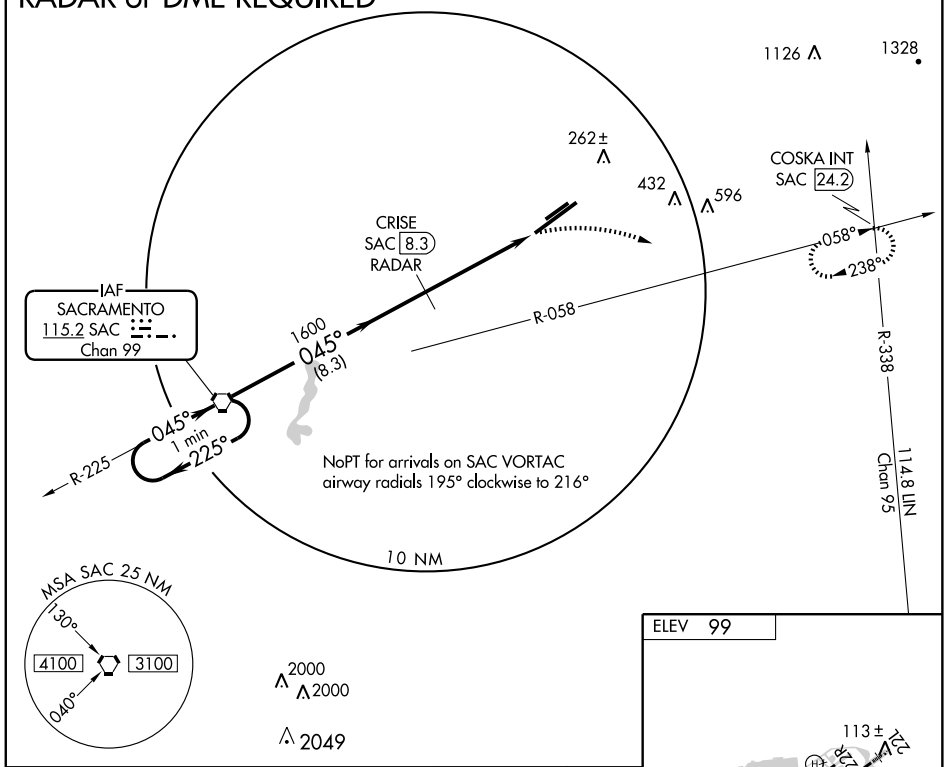
VOR RWY 4R
SACRAMENTO MATHER (MHR)

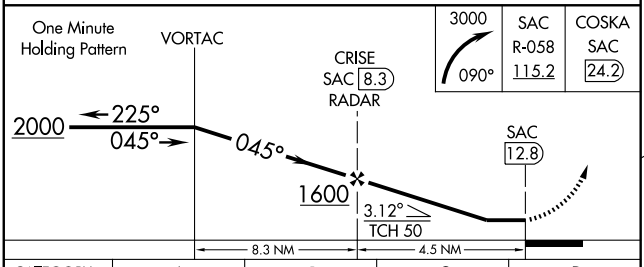
Circling not authorized north of Rwy 4L-22R.

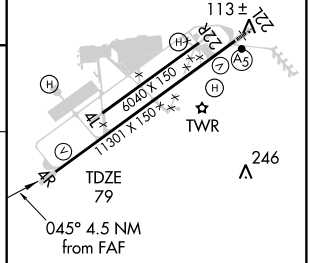
MISSED APPROACH: Climbing right turn to 3000 via heading 090° and SAC R-058 to COSKA Int/SAC 24.2 DME and hold.

ATIS	NORCAL APP CON	MATHER TOWER	GND CON	CLNC DEL
118.325	127.4 317.5	120.65 282.25	121.85 307.9	121.85 307.9

RADAR or DME REQUIRED







CATEGORY	A	B	C	D
S-4R	560-1	481 (500-1)	560-1¼ 481 (500-1¼)	560-1½ 481 (500-1½)
CIRCLING	560-1	461 (500-1)	560-1½ 461 (500-1½)	660-2 561 (600-2)

MIRL Rwy 4L-22R
HIRL Rwy 4R-22L

FAF to MAP 4.5 NM

Knots	60	90	120	150	180
Min:Sec	4:30	3:00	2:15	1:48	1:30

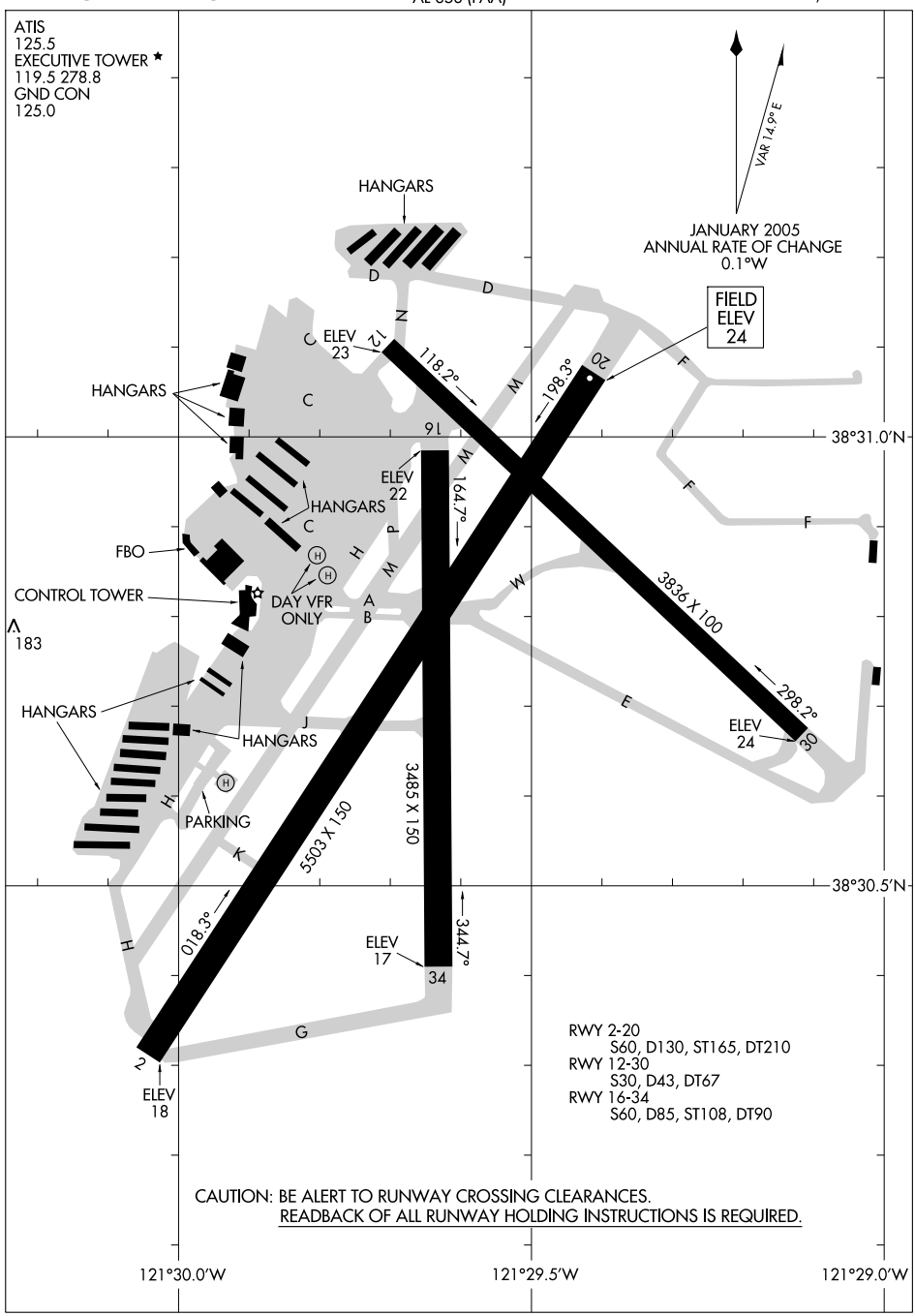
SW-2, 14 JAN 2010 to 11 FEB 2010

09239

AIRPORT DIAGRAM

AL-358 (FAA)

SACRAMENTO EXECUTIVE (SAC)
SACRAMENTO, CALIFORNIA



SW-2, 14 JAN 2010 to 11 FEB 2010

LOC I-SAC	APP CRS	Rwy Idg	5503
110.3	019°	TDZE	21
		Apt Elev	24

ILS or LOC RWY 2

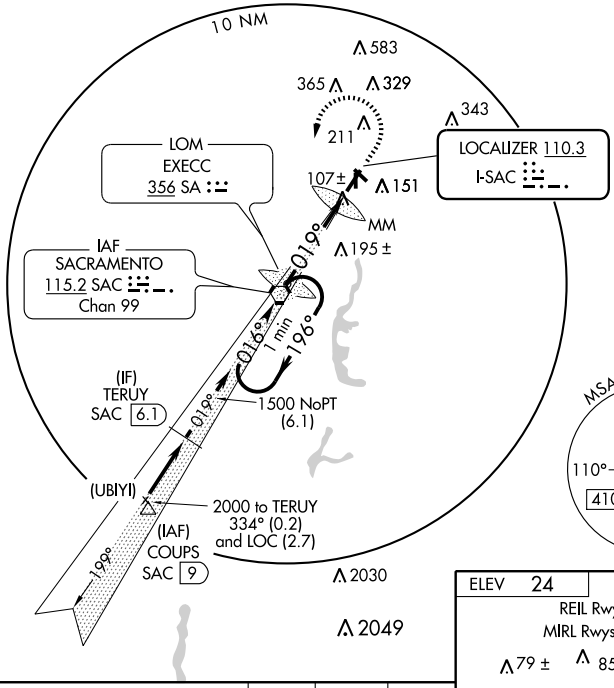
SACRAMENTO EXECUTIVE (SAC)

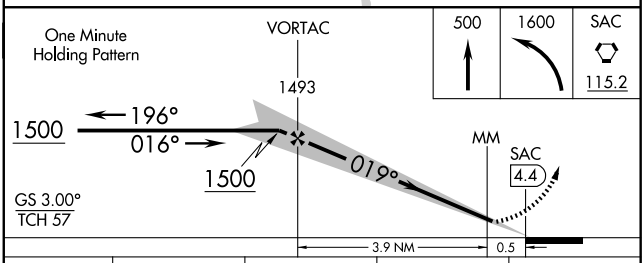
For inoperative MALSR, when using local altimeter setting, increase S-LOC 2 all Cats visibility to 1 mile, when using Sacramento Intl altimeter setting increase S-LOC 2 Cat D visibility to 1¼ mile. Inoperative table does not apply to S-ILS 2. Visibility reduction by helicopters NA. When local altimeter setting not received, use Sacramento Intl altimeter setting and increase all DA/MDA 40 feet.

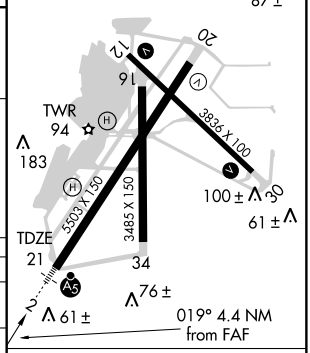
MALSR A5

MISSED APPROACH: Climb to 500, then climbing left turn to 1600 direct SAC VORTAC and hold.

ATIS	NORCAL APP CON	EXEC TOWER ★	GND CON	UNICOM
125.5	125.25 257.9 (SE-NW)	119.5 (CTAF) L 278.8	125.0	122.95







CATEGORY	A	B	C	D
S-ILS 2	221-¾ 200 (200-¾)			
S-LOC 2	360-¾ 339 (400-¾)			
CIRCLING	500-1 476 (500-1)	520-1 496 (500-1)	520-1½ 496 (500-1½)	580-2 556 (600-2)

FAF to MAP 4.4 NM

Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 62810 W02A	APP CRS 019°	Rwy Idg 5503 / TDZE 21 / Apt Elev 24

RNAV (GPS) RWY 2
SACRAMENTO EXECUTIVE (SAC)

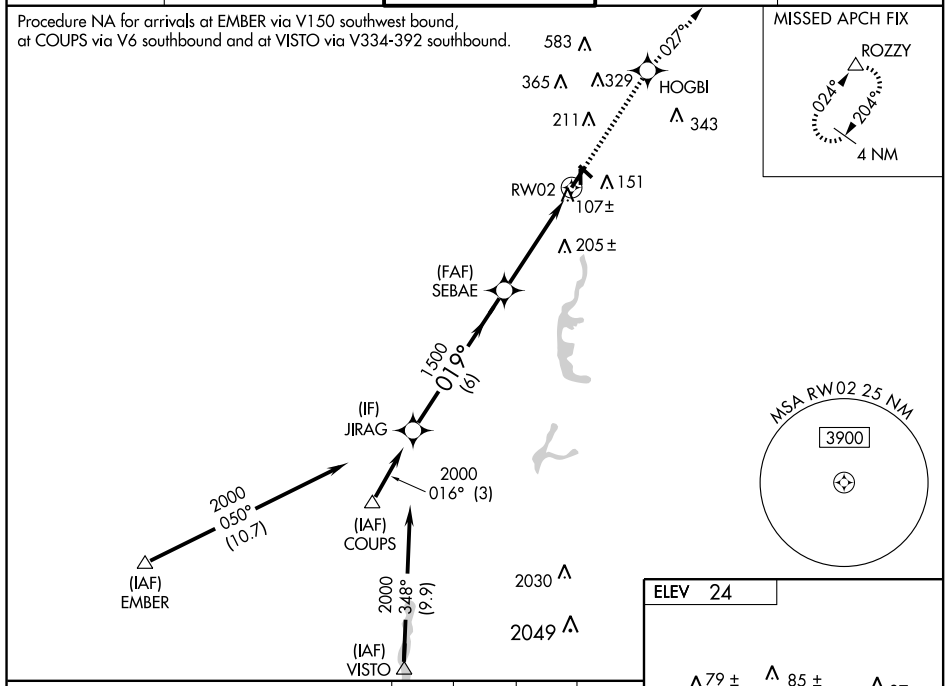
T A For inoperative MALSR, when using local altimeter setting, increase LNAV Cats A, B visibility to 1 mile and Cat D to 1¼. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). Inoperative table does not apply to LPV. DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Sacramento Intl altimeter setting and increase all DA/MDA 40 feet. VDP and Baro-VNAV NA when using Sacramento Intl altimeter setting.

MALSR A5

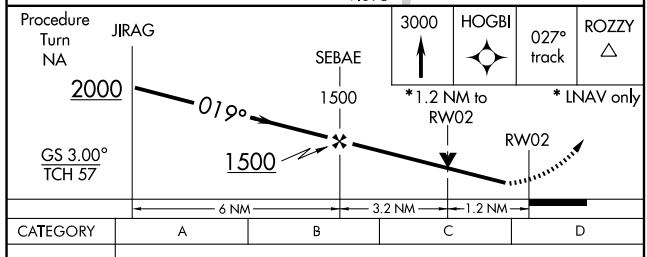
MISSED APPROACH: Climb to 3000 direct HOGBI and via 027° track to ROZZY and hold.

ATIS	NORCAL APP CON	EXEC TOWER ★	GND CON	UNICOM
125.5	125.25 257.9 (SE-NW)	119.5 (CTAF) L 278.8	125.0	122.95

Procedure NA for arrivals at EMBER via V150 southwest bound, at COUPS via V6 southbound and at VISTO via V334-392 southbound.

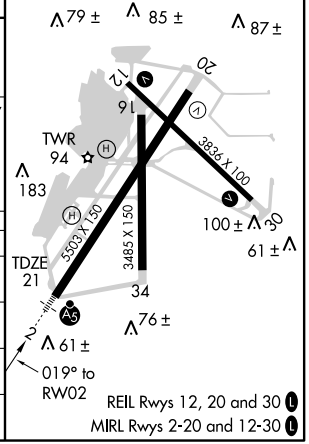


MISSED APCH FIX



CATEGORY	A	B	C	D
LPV DA	221-¾ 200 (200-¾)			
LNAV/VNAV DA	373-¾ 352 (400-¾)			
LNAV MDA	440-¾ 419 (500-¾)			440-1 419 (500-1)
CIRCLING	500-1 476 (500-1)	520-1 496 (500-1)	520-1½ 496 (500-1½)	580-2 556 (600-2)

ELEV 24



REIL Rwys 12, 20 and 30 L
MIRL Rwys 2-20 and 12-30 L

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC SAC	APP CRS	Rwy Idg	5503
115.2	016°	TDZE	21
Chan 99		Apt Elev	24

VOR RWY 2

SACRAMENTO EXECUTIVE (SAC)

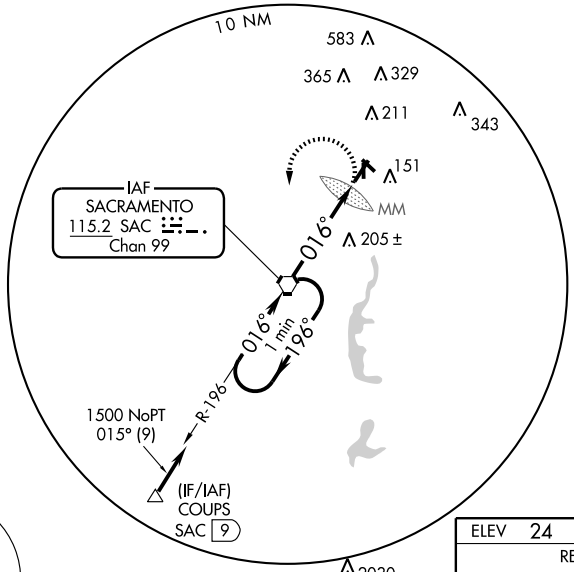
For inoperative MALSR, increase S-2 Cats A, B visibility to 1 mile. Visibility reduction by helicopters NA.

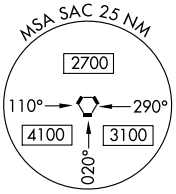
When local altimeter setting not received, use Sacramento Intl altimeter setting and increase all MDA 40 feet and S-2 Cats C, D visibilities ¼ mile. VDP NA when using Sacramento Intl altimeter setting.

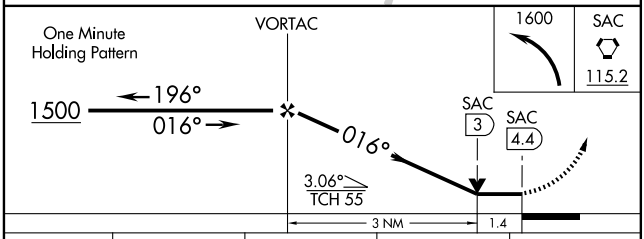
MALSR

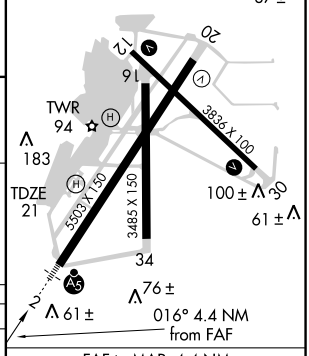
MISSED APPROACH: Climbing left turn to 1600 direct SAC VORTAC and hold.

ATIS	NORCAL APP CON	EXEC TOWER ★	GND CON	UNICOM
125.5	125.25 257.9 (SE-NW)	119.5 (CTAF) L 278.8	125.0	122.95









CATEGORY	A	B	C	D
S-2	520-¾ 499 (500-¾)			520-1 499 (500-1)
CIRCLING	520-1 496 (500-1)		520-1½ 496 (500-1½)	580-2 556 (600-2)

FAF to MAP 4.4 NM

Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28

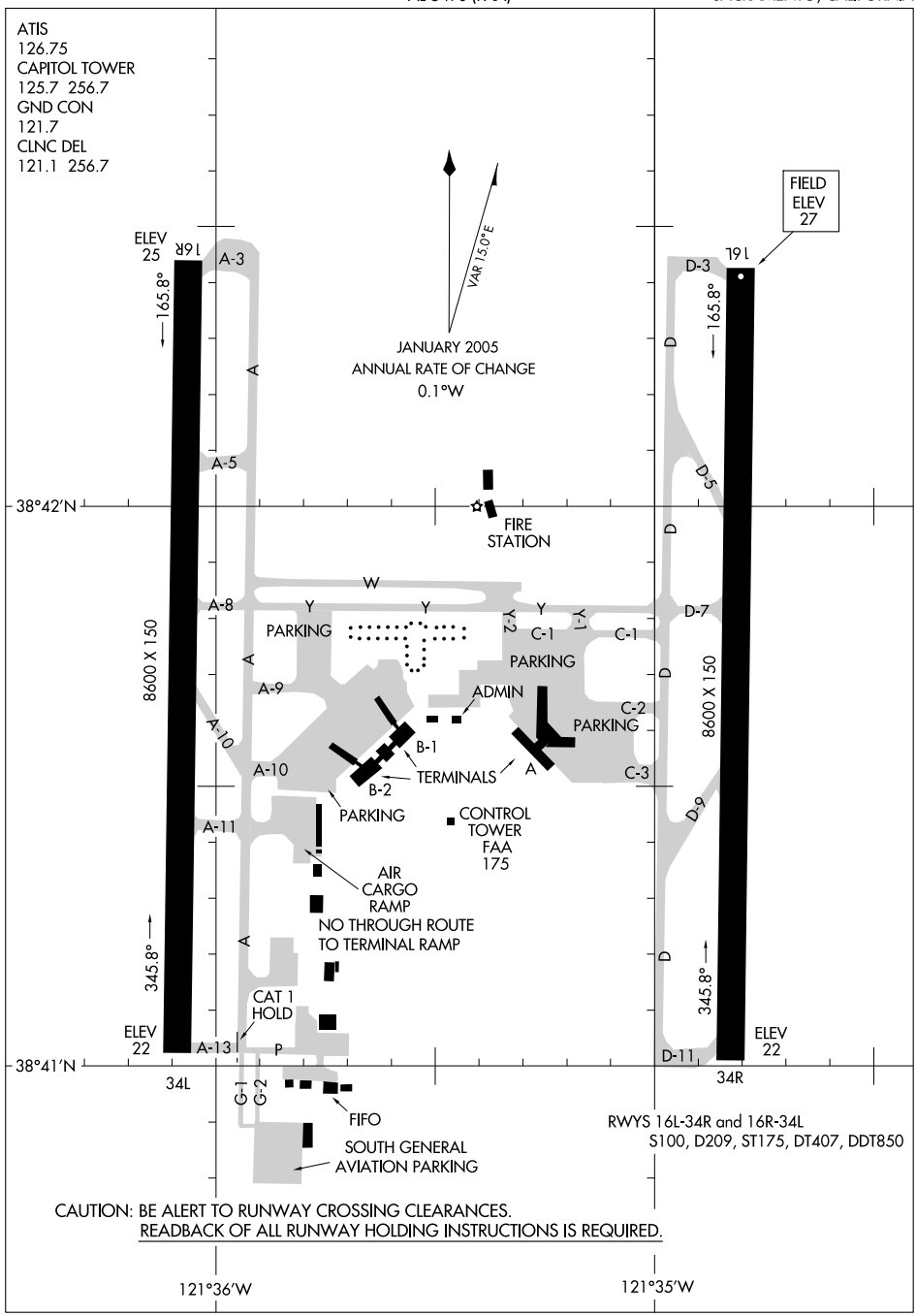
SW-2, 14 JAN 2010 to 11 FEB 2010

09351

AIRPORT DIAGRAM

AL-5490 (FAA)

SACRAMENTO INTL (SMF)
SACRAMENTO, CALIFORNIA

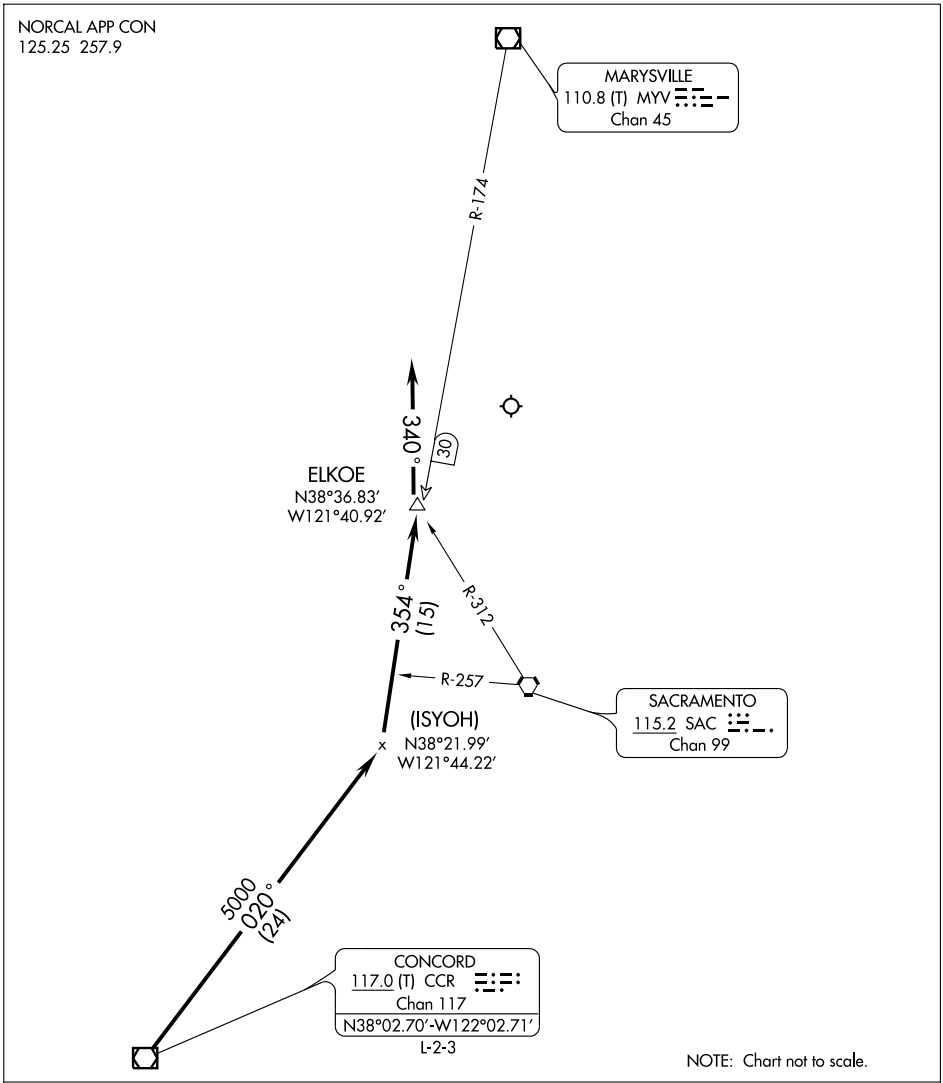


SW-2, 14 JAN 2010 to 11 FEB 2010

CONCORD ONE ARRIVAL

ST-5490 (FAA)

SACRAMENTO INTL
SACRAMENTO, CALIFORNIA



From over CCR VOR/DME via CCR R-020 and the MYV R-174 to ELKOE INT then via heading 340° for radar vector to final approach course. Expect descent below 10,000 after passing the SAC R-257.

SW-2, 14 JAN 2010 to 11 FEB 2010

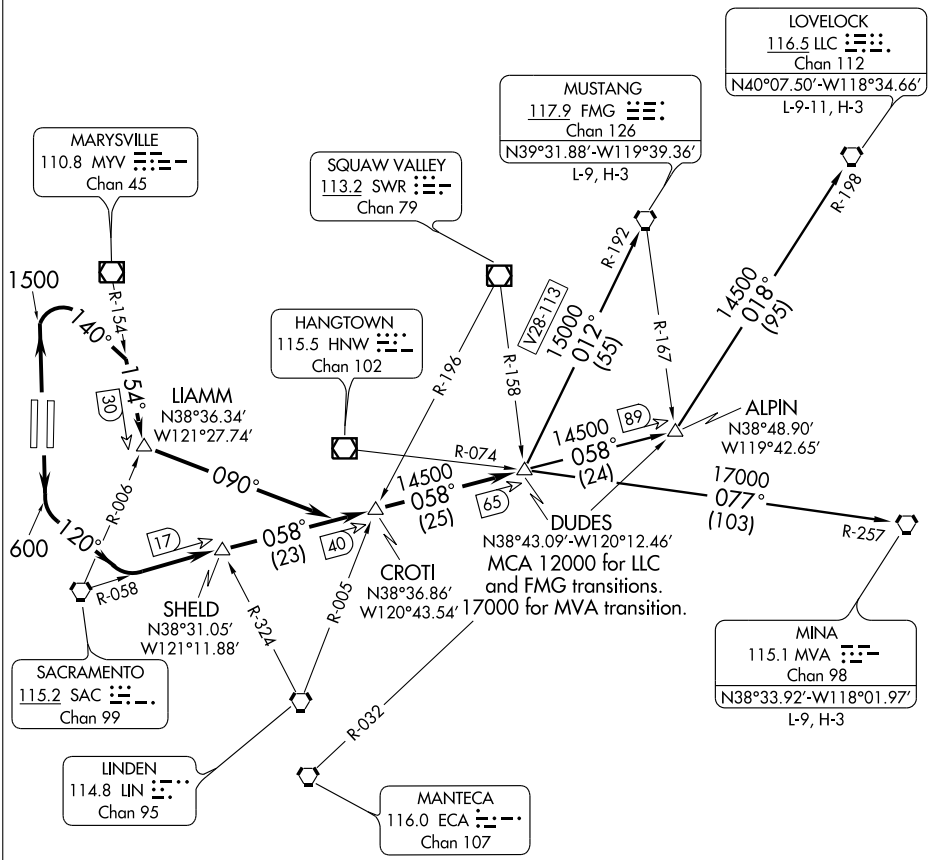
(DUDES9.DUDES) 09127

DUDES NINE DEPARTURE

SL-5490 (FAA)

SACRAMENTO INTL (SMF)
SACRAMENTO, CALIFORNIA

CLNC DEL
121.1 256.7
NORCAL DEP CON
(S-SW) 125.25 257.9
(W-N) 134.8 270.25
(NE) 125.4 259.1
(E-SE) 127.4 317.5



NOTE: RADAR Required.

NOTE: DME Required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SW-2, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 16L/R: Maintain runway heading until 600', then turn left to a 120° heading to intercept and proceed via the SAC R-058 to DUDES INT, then via (transition) or (assigned route). Expect further clearance to filed altitude after CROTI INT.

TAKE-OFF RUNWAYS 34L/R: Maintain runway heading until 1500', then turn right to a 140° heading to intercept and proceed via the MYV R-154 to LIAMM INT, then turn left to a 090° heading to intercept and proceed via the SAC R-058 to DUDES INT, then via (transition) or (assigned route). Expect further clearance to filed altitude after CROTI INT.

LOST COMMUNICATIONS: Take-off runways 34L/R: Maintain runway heading until 1500', then turn right heading 140° to intercept and proceed via the MYV R-154 to intercept and proceed via the SAC R-058 to DUDES INT. Then resume own navigation.

LOVELOCK TRANSITION (DUDES9.LLC): From over DUDES INT via the SAC R-058 and the LLC R-198 to LLC VORTAC.

MINA TRANSITION (DUDES9.MVA): From over DUDES INT via the MVA R-257 to MVA VORTAC.

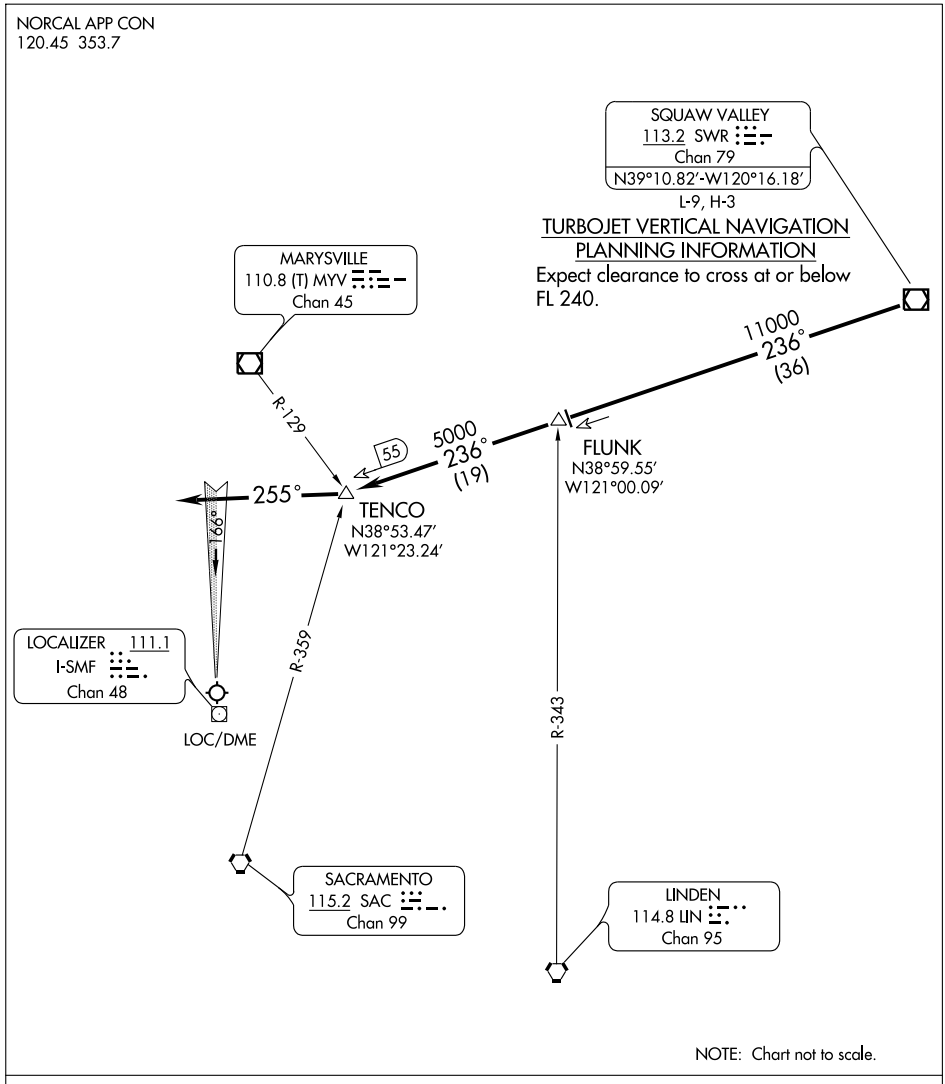
MUSTANG TRANSITION (DUDES9.FMG): From over DUDES INT via the FMG R-192 to FMG VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

FLUNK THREE ARRIVAL

ST-5490 (FAA)

SACRAMENTO INTL
SACRAMENTO, CALIFORNIA



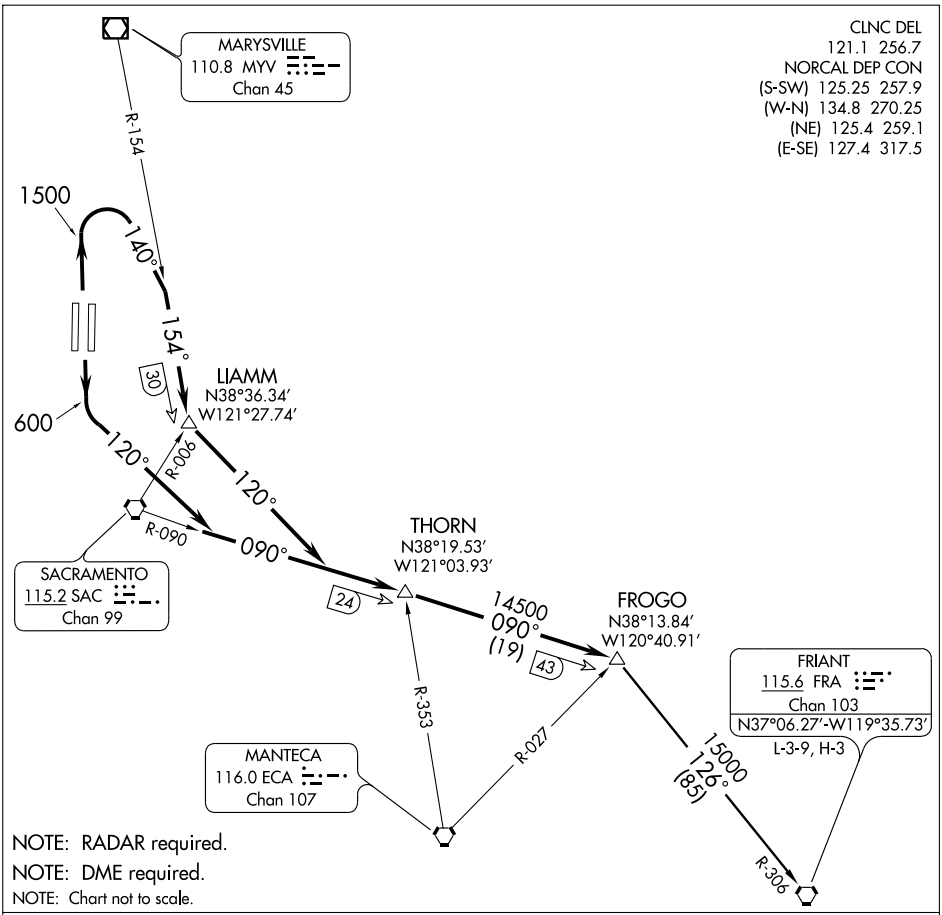
From over SWR VOR/DME via SWR R-236 to TENCO INT. Depart TENCO INT heading 255° for vector to final approach course. Expect descent below 10000' passing FLUNK INT.

(FROGO6.FROGO) 09127

FROGO SIX DEPARTURE

SL-5490 (FAA)

SACRAMENTO INTL (SMF)
SACRAMENTO, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 16L/R: Maintain runway heading until 600′, then turn left heading 120° to intercept and proceed via the SAC R-090 to FROGO INT. Then via (transition) or (assigned route). Expect further clearance to filed altitude after THORN INT.

TAKE-OFF RUNWAYS 34L/R: Maintain runway heading until 1500′, then turn right heading 140° to intercept the MYV R-154. Intercept and proceed via the MYV R-154 to LIAMM INT, then turn left heading 120° to intercept and proceed via the SAC R-090 to FROGO INT. Then via (transition) or (assigned route). Expect further clearance to filed altitude after LIAMM INT.

LOST COMMUNICATIONS: Take-off Runways 34L/R: Maintain runway heading until 1500′ then turn right heading 140° to intercept the MYV R-154. Intercept and proceed via the MYV R-154 to intercept the SAC R-090 to FROGO INT. Then resume own navigation.

FRIANT TRANSITION (FROGO6.FRA): From over FROGO INT via FRA R-306 to FRA VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-MDK	APP CRS	Rwy Idg	8601
111.75	164°	TDZE	27
Chan 54 (Y)		Apt Elev	27

ILS or LOC RWY 16L

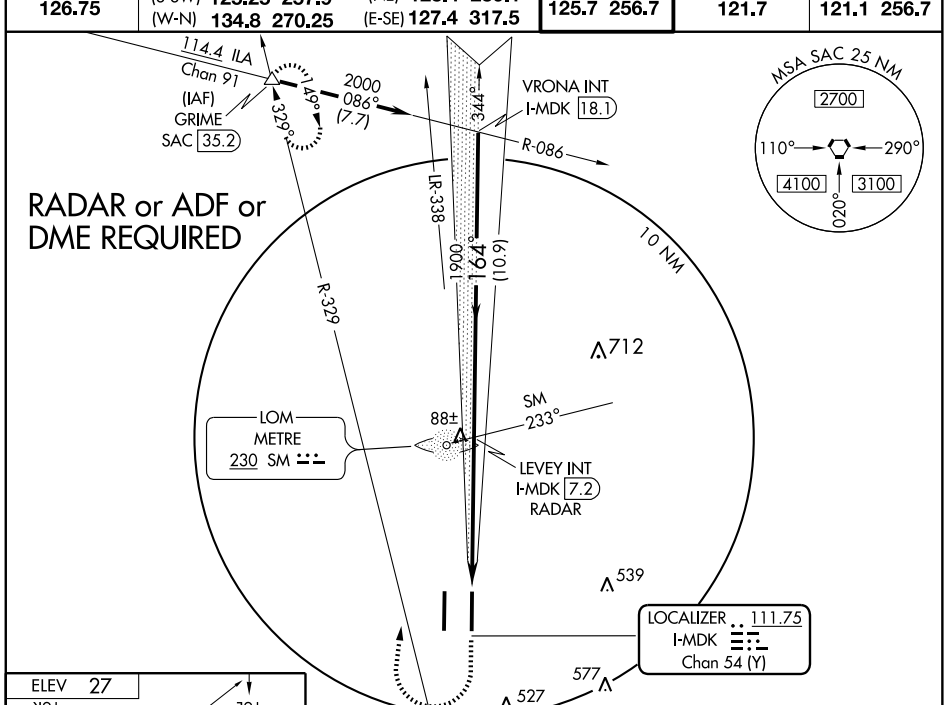
SACRAMENTO INTL (SMF)

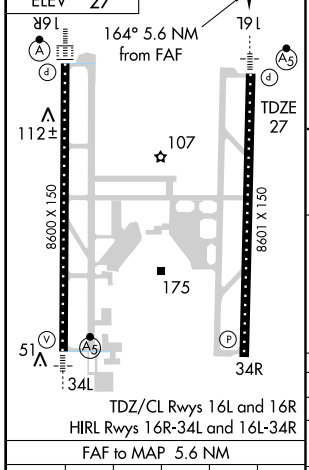
For inoperative MALSR, increase S-LOC Cat D visibility to 1 mile.
Circling not authorized west of Rwy 16L-34R.

MALSR

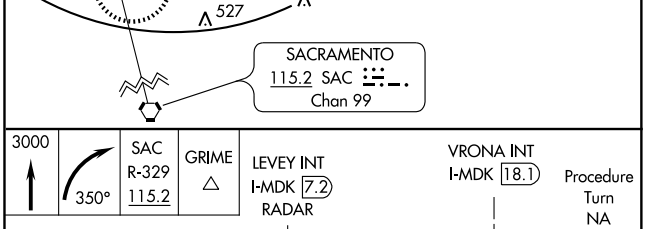
MISSED APPROACH: Climb to 3000, then right turn via heading 350° and SAC R-329 to GRIME INT/SAC 35.2 DME and hold.

ATIS	NORCAL APP CON				CAPITAL TOWER	GND CON	CLNC DEL
126.75	(S-SW) 125.25 257.9		(NE) 125.4 259.1		125.7 256.7	121.7	121.1 256.7
	(W-N) 134.8 270.25		(E-SE) 127.4 317.5				





FAF to MAP 5.6 NM					
Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52



CATEGORY	A	B	C	D
S-ILS 16L	227-½ 200 (200-½)			
S-LOC 16L	340-½ 313 (400-½)			340-¾ 313 (400-¾)
CIRCLING	440-1 413 (500-1)	480-1 453 (500-1)	480-1½ 453 (500-1½)	580-2 553 (600-2)

SACRAMENTO, CALIFORNIA AL-5490 (FAA)

LOC/DME I-SMF	APP CRS	Rwy Idg	8600
111.1	166°	TDZE	25
Chan 48		Apt Elev	27

ILS or LOC RWY 16R

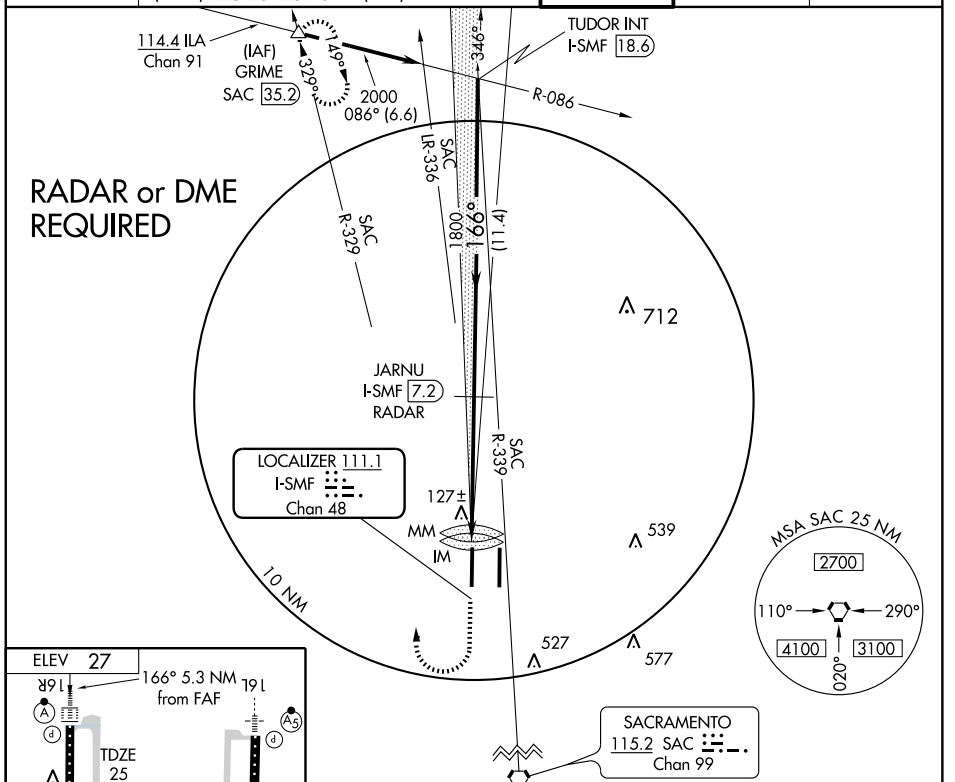
SACRAMENTO INTL (SMF)

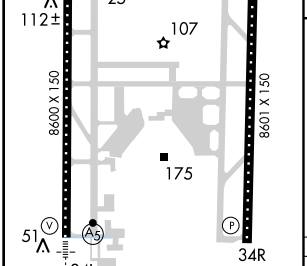
Circling not authorized east of Rwy 16R-34L.

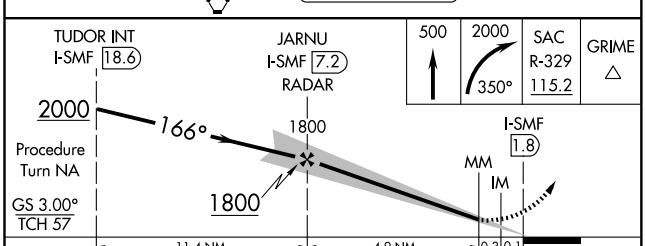
ALSF-2

MISSED APPROACH: Climb to 500, then climbing right turn to 2000 via heading 350° and SAC R-329 to GRIME Int/SAC 35.2 DME and hold.

ATIS	NORCAL APP CON		CAPITAL TOWER	GND CON	CLNC DEL
126.75	(W-N) 134.8 270.25	(NE) 125.4 259.1	125.7 256.7	121.7	121.1 256.7
	(S-SW) 125.25 257.9	(E-SE) 127.4 317.5			







FAF to MAP 5.3 NM					
Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46

CATEGORY	A	B	C	D
S-ILS 16R	225/18 200 (200-½)			
S-LOC 16R	400/24 375 (400-½)			400/40 375 (400-¾)
CIRCLING	440-1 413 (500-1)	480-1 453 (500-1)	480-1½ 453 (500-1½)	580-2 553 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-HUX	APP CRS	Rwy Idg	8600
111.1	344°	TDZE	24
Chan 48		Apt Elev	27

ILS or LOC RWY 34L

SACRAMENTO INTL (SMF)

VDP NA with Sacramento Executive altimeter setting.
For inoperative MALSR increase S-LOC 34L Cat. D visibility to RVR 5000.
Circling NA east of Rwy 16R/34L.
If local altimeter setting not received, use Sacramento Executive altimeter setting and increase all DA/MDAs 40 feet.
* RVR 1800 authorized with the use of FD or AP or HUD to DA.

MALSR

MISSED APPROACH: Climb to 500, then climbing left turn to 2000 via heading 320° and SAC R-329 to GRIME INT/SAC 35.2 DME and hold.

ATIS	NORCAL APP CON				CAPITAL TOWER	GND CON	CLNC DEL
126.75	(W-N) 134.8 270.25		(NE) 125.4 259.1		125.7 256.7	121.7	121.1 256.7
	(S-SW) 125.25 257.9		(E-SE) 127.4 317.5				

MISSED APCH FIX
114.4 ILA
R-086
Chan 91
149°
329°
GRIME
SAC 35.2
SAC R-329

ALTERNATE MISSED APCH FIX
R-327
147°
327°
MARYSVILLE
MYV
110.8
Chan 45

LOCALIZER 111.1
I-HUX
Chan 48
73±
SAC R-329
539
577
527
583
HADSU
I-HUX 5.7
RADAR
1400
344° (7.3)
R-303
(IF)
ELMAC INT
I-HUX 13
10 NM
2000
303° (3.9)
164°

MSA SAC 25 NM
2700
110° 290°
4100 3100
020°

IAF
SACRAMENTO
115.2 SAC
Chan 99

RADAR or DME REQUIRED

Procedure NA for arrivals on SAC VORTAC airway radials 257 CW 329.

ELEV 27
16R
16L
112±
107
8600 X 150
8601 X 150
175
TDZE
24
51
34L
34R
344° 4.1 NM from FAF
TDZ/CL Rwys 16L and 16R
HIRL Rwys 16R-34L and 16L-34R

ELMAC INT
I-HUX 13
Procedure Turn NA
2000
344°
1400
GS 3.00°
TCH 59
HADSU
I-HUX 5.7
RADAR
500
2000
320°
SAC
R-329
115.2
GRIME
I-HUX
2.4
I-HUX
1.6
7.3 NM
3.3 NM
0.8

CATEGORY	A	B	C	D
S-ILS 34L	* 224/24 200 (200-½)			
S-LOC 34L	340/24 316 (400-½)			340/40 316 (400-¾)
CIRCLING	440-1 413 (500-1)	480-1 453 (500-1)	480-1½ 453 (500-1½)	580-2 553 (600-2)

FAF to MAP 4.1 NM					
Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-SMF	APP CRS	Rwy Idg	8600
111.1	166°	TDZE	25
Chan 48		Apt Elev	27

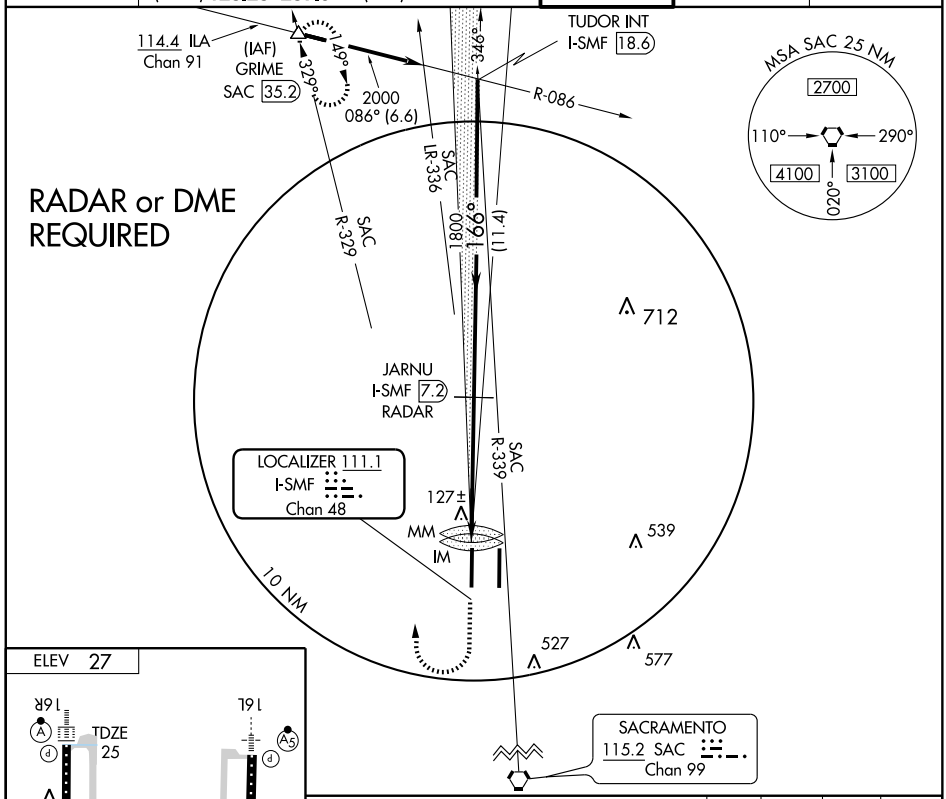
ILS RWY 16R (CAT II)

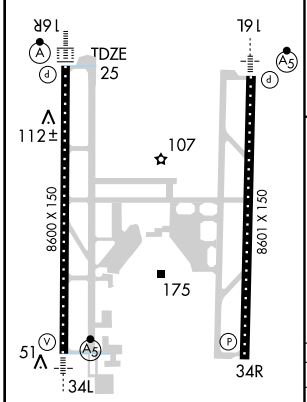
SACRAMENTO INTL (SMF)

ALSF-2

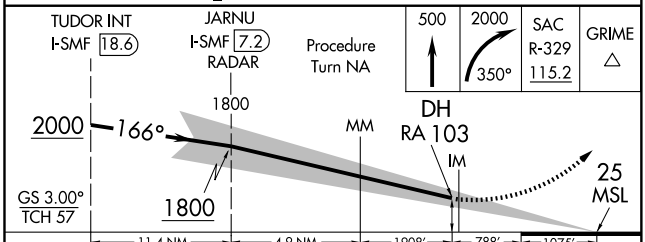
MISSED APPROACH: Climb to 500, then climbing right turn to 2000 via heading 350° and SAC R-329 to GRIME Int/SAC 35.2 DME and hold.

ATIS	NORCAL APP CON		CAPITAL TOWER	GND CON	CLNC DEL
126.75	(W-N) 134.8 270.25	(NE) 125.4 259.1	125.7 256.7	121.7	121.1 256.7
	(S-SW) 125.25 257.9	(E-SE) 127.4 317.5			





TDZ/CL Rwys 16L and 16R
HIRL Rwys 16R-34L and 16L-34R



CATEGORY	A	B	C	D
S-ILS 16R	RA 125/12 100 DA 103			

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SACRAMENTO, CALIFORNIA AL-5490 (FAA)

LOC/DME I-SMF	APP CRS	Rwy Idg	8600
111.1	166°	TDZE	25
Chan 48		Apt Elev	27

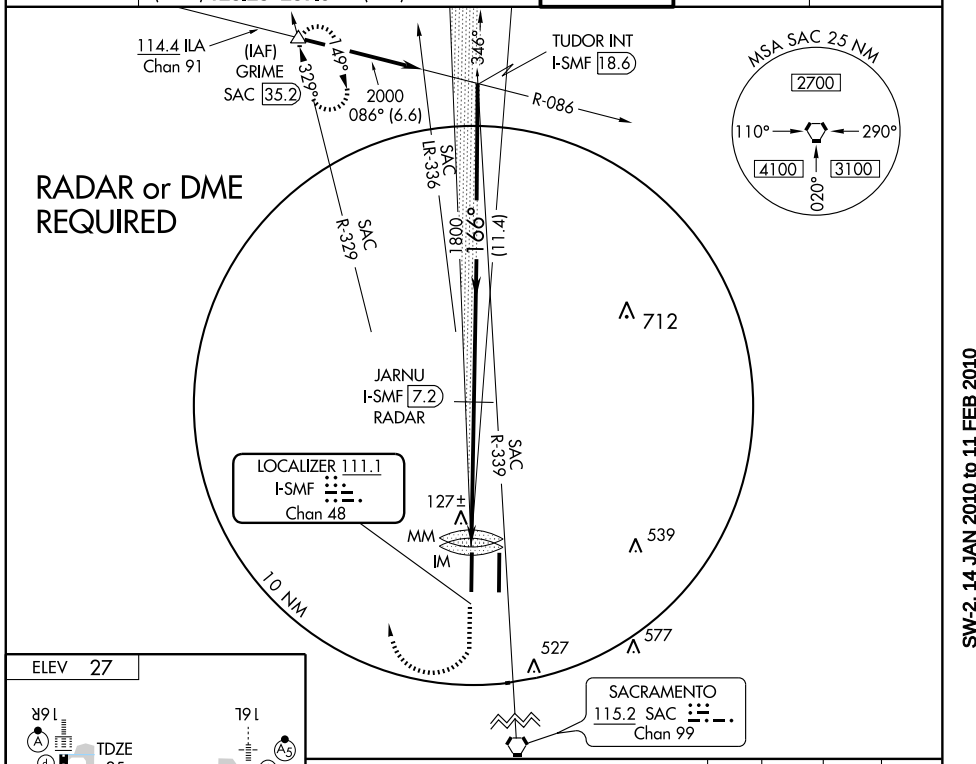
ILS RWY 16R (CAT III)

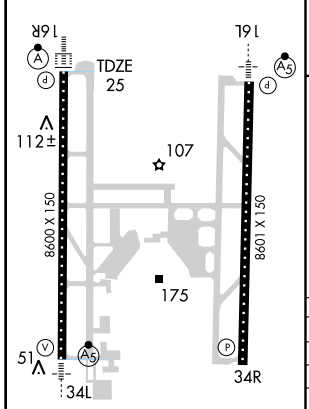
SACRAMENTO INTL (SMF)

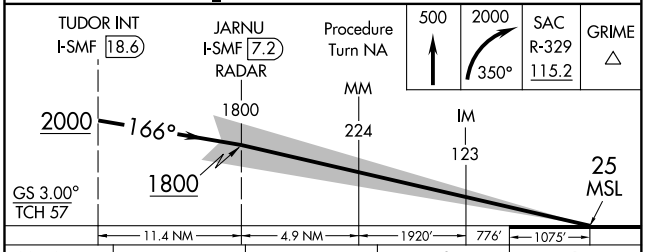
ALSF-2

MISSED APPROACH: Climb to 500, then climbing right turn to 2000 via heading 350° and SAC R-329 to GRIME Int/SAC 35.2 DME and hold.

ATIS	NORCAL APP CON		CAPITAL TOWER	GND CON	CLNC DEL
126.75	(W-N) 134.8 270.25	(NE) 125.4 259.1	125.7 256.7	121.7	121.1 256.7
	(S-SW) 125.25 257.9	(E-SE) 127.4 317.5			







CATEGORY	A	B	C	D
S-ILS 16R	CAT IIIa RVR 07			
S-ILS 16R	CAT IIIb RVR 06			
S-ILS 16R	CAT IIIc NA			

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	8601
164°	TDZE	27
	Apt Elev	27

RNAV (GPS) RWY 16L

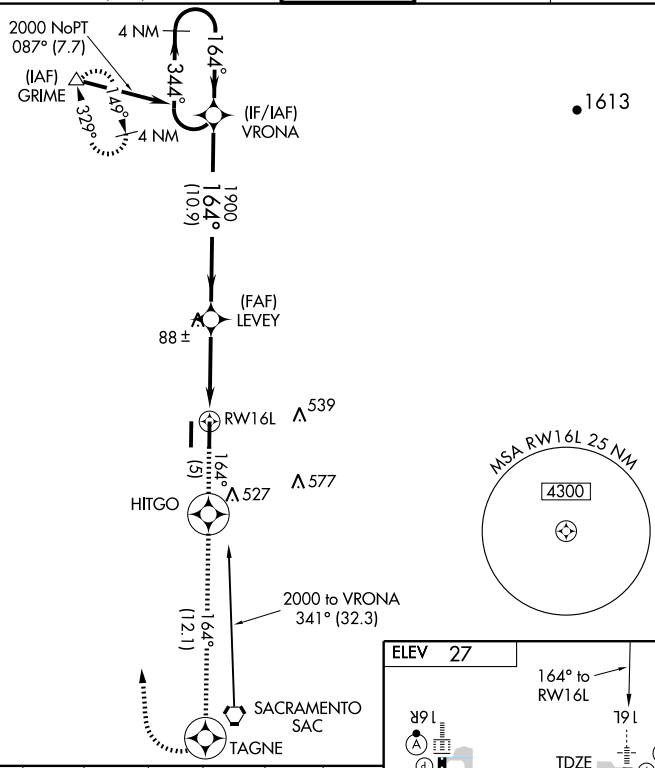
SACRAMENTO INTL (SMF)

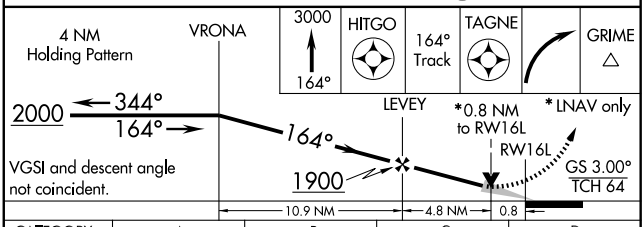
DME/DME RNP- 0.3 NA. Inoperative table does not apply to LNAV Cat. D.
For inoperative MALSR, increase LNAV Cat D visibility to 1¼ mile.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). Circling NA west of Rwy 16L-34R.

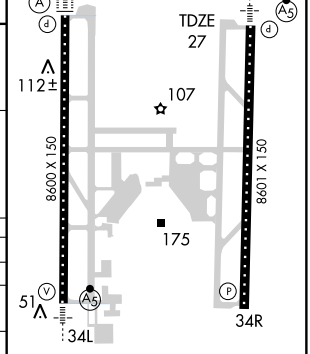
MALSR

MISSED APPROACH: Climb to 3000 via 164° course to HITGO WP, then via track 164° to TAGNE WP, then right turn direct GRIME WP and hold.

ATIS	NORCAL APP CON				CAPITAL TOWER	GND CON	CLNC DEL
126.75	(W-N) 134.8 270.25		(NE) 125.4 259.1		125.7 256.7	121.7	121.1 256.7
	(S-SW) 125.25 257.9		(E-SE) 127.4 317.5				







CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/ VNAV DA	418-¾ 391 (400-¾)			
LNAV MDA	380-½ 353 (400-½)			380-1 353 (400-1)
CIRCLING	440-1 413 (500-1)	480-1 453 (500-1)	480-1½ 453 (500-1½)	580-2 553 (600-2)

TDZ/CL Rwys 16L and 16R
HIRL Rwys 16R-34L and 16L-34R

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	8600
164°	TDZE	25
	Apt Elev	27

RNAV (GPS) RWY 16R

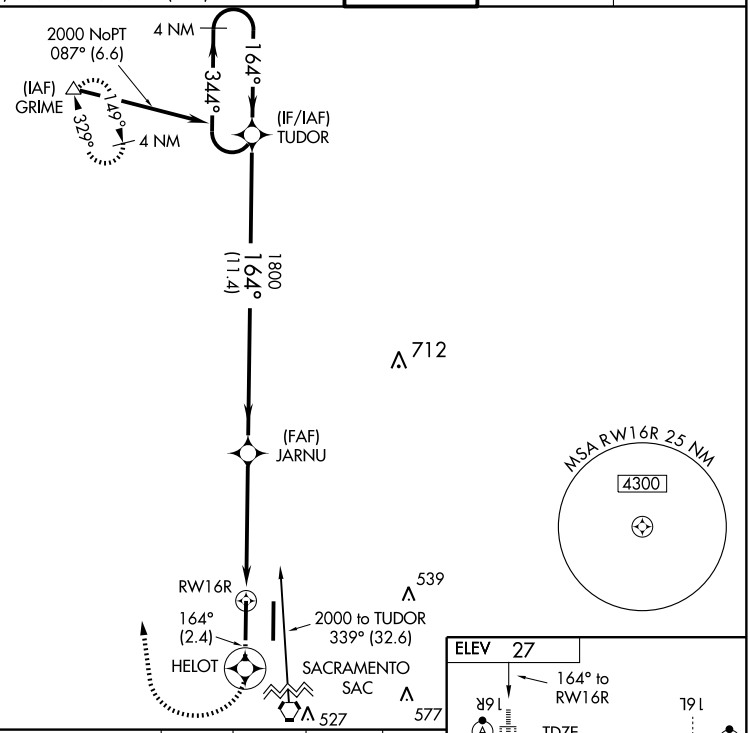
SACRAMENTO INTL (SMF)

Circling NA east of Rwy 16R-34L. DME/DME RNP- 0.3 NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F).
For inoperative ALSF-2 increase LNAV Cat D visibility to RVR 6000.

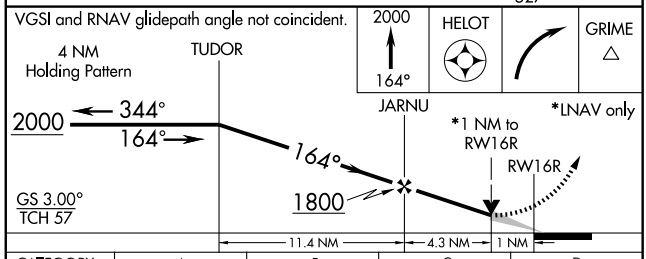
ALSF-2

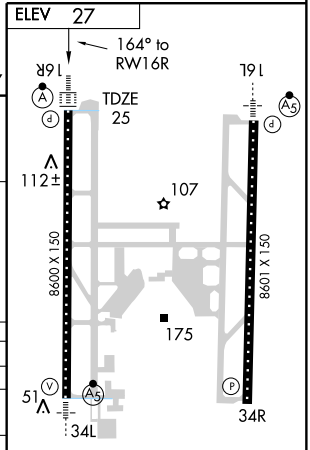
MISSED APPROACH: Climb to 2000 via 164°course to HELOT WP, then right turn direct GRIME WP and hold.

ATIS	NORCAL APP CON		CAPITAL TOWER	GND CON	CLNC DEL
126.75	(W-N) 134.8 270.25	(NE) 125.4 259.1	125.7 256.7	121.7	121.1 256.7
	(S-SW) 125.25 257.9	(E-SE) 127.4 317.5			



VGSI and RNAV glidepath angle not coincident.





TDZ/CL Rwys 16L and 16R
HIRL Rwys 16R-34L and 16L-34R

CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	409/40 384 (400-¾)			
LNAV MDA	400/24 375 (400-½)			400/50 375 (400-1)
CIRCLING	440-1 413 (500-1)	480-1 453 (500-1)	480-1½ 453 (500-1½)	580-2 553 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 86602 W34A	APP CRS 344°	Rwy Idg 8600 / TDZE 24 / Apt Elev 27

RNAV (GPS) RWY 34L
SACRAMENTO INTL (SMF)

DME/DME RNP- 0.3 NA. Circling NA east of Rwy 16R-34L.
For inoperative MALSR, increase LNAV/VNAV Cat. D visibility to RVR 5000 and LNAV Cat. D visibility to RVR 6000.
For inoperative MALSR, increase LPV all Cats. visibility to RVR 4000.
Baro-VNAV NA when using Sacramento Executive altimeter setting.
If local altimeter setting not received, use Sacramento Executive altimeter setting and increase all DAs/MDAs 40 feet.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (119°F).
VDP NA with Sacramento Executive altimeter setting.

MALSR

MISSED APPROACH: Climb to 2000 direct RATBE and via 323° track to GRIME and hold.

ATIS	NORCAL APP CON	CAPITAL TOWER	GND CON	CLNC DEL
126.75	(W-N) 134.8 270.25 (NE) 125.4 259.1 (S-SW) 125.25 257.9 (E-SE) 127.4 317.5	125.7 256.7	121.7	121.1 256.7

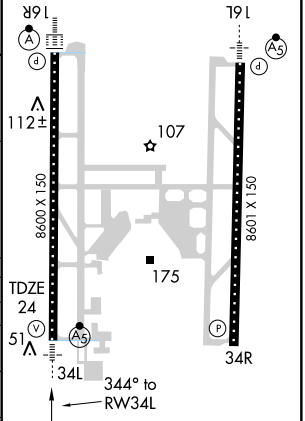
MISSED APCH FIX
GRIME 149° 329° 4 NM

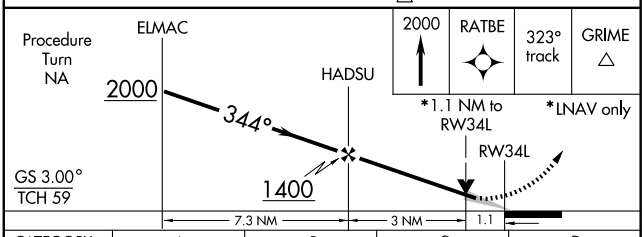
Procedure NA for arrivals at SAC VORTAC on airway radials 257 CW 329.

323° RATBE ∧539
RW34L 73±
∧577
∧527
(FAF) HADSU ∧583
1400 344° (7.3)
(IF) ELMAC
2000 303° (3.9) (IAF) SACRAMENTO SAC
2000 355° (10.9) (IAF) COUPS

MSA RW34L 25 NM
4300

ELEV 27





CATEGORY	A	B	C	D
LPV DA	274/24 250 (300-½)			
LNAV/VNAV DA	336/24 312 (400-½)			336/40 312 (400-¾)
LNAV MDA	420/24 396 (400-½)			420/50 396 (400-1)
CIRCLING	440-1 413 (500-1)	480-1 453 (500-1)	480-1½ 453 (500-1½)	580-2 553 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	8601
344°	TDZE	24
	Apt Elev	27

RNAV (GPS) RWY 34R

SACRAMENTO INTL (SMF)

For uncompensated Baro/VNAV systems, Baro-VNAV NA below -15°C (5°F) or above 48°C (118°F).
Circling not authorized west of Rwy 16L-34R.
DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 2000 via 344° course to OSAVE WP, then left turn via 320° track to GRIME WP and hold.

ATIS	NORCAL APP CON		CAPITAL TOWER	GND CON	CLNC DEL
126.75	(W-N) 134.8 270.25	(NE) 125.4 259.1	125.7 256.7	121.7	121.1 256.7
	(S-SW) 125.25 257.9	(E-SE) 127.4 317.5			

MISSED APCH FIX

GRIME 149° 329° 4 NM

320° (18.6) OSAVE

344° (2.7)

RW34R

705 539 577 527

(FAF) CEDRA

1400 344° (6.5)

FIPIN

2600 322° (4.1) (IAF) SACRAMENTO SAC

2600 359° (11.9) (IAF) COUPS

MSA RW34R 25 NM 4300

ELEV 27

16R 16L 112± 107 8600 X 150 8601 X 150 175 51 TDZE 24 34L 34R 344° to RW34R

TDZ/CL Rwys 16L and 16R
HIRL Rwys 16R-34L and 16L-34R

Procedure Turn NA

FIPIN 2600 344° CEDRA 1400 RW34R

2000 344° OSAVE 320° GRIME

*2 NM to RW34R

*LNAV only

GS 3.00°
TCH 64

6.5 NM 2.1 NM 2 NM

CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	376-1¼ 352 (400-1¼)			
LNAV MDA	720-1 696 (700-1)		720-2 696 (700-2)	720-2¼ 696 (700-2¼)
CIRCLING	720-1 693 (700-1)		720-2 693 (700-2)	720-2¼ 693 (700-2¼)

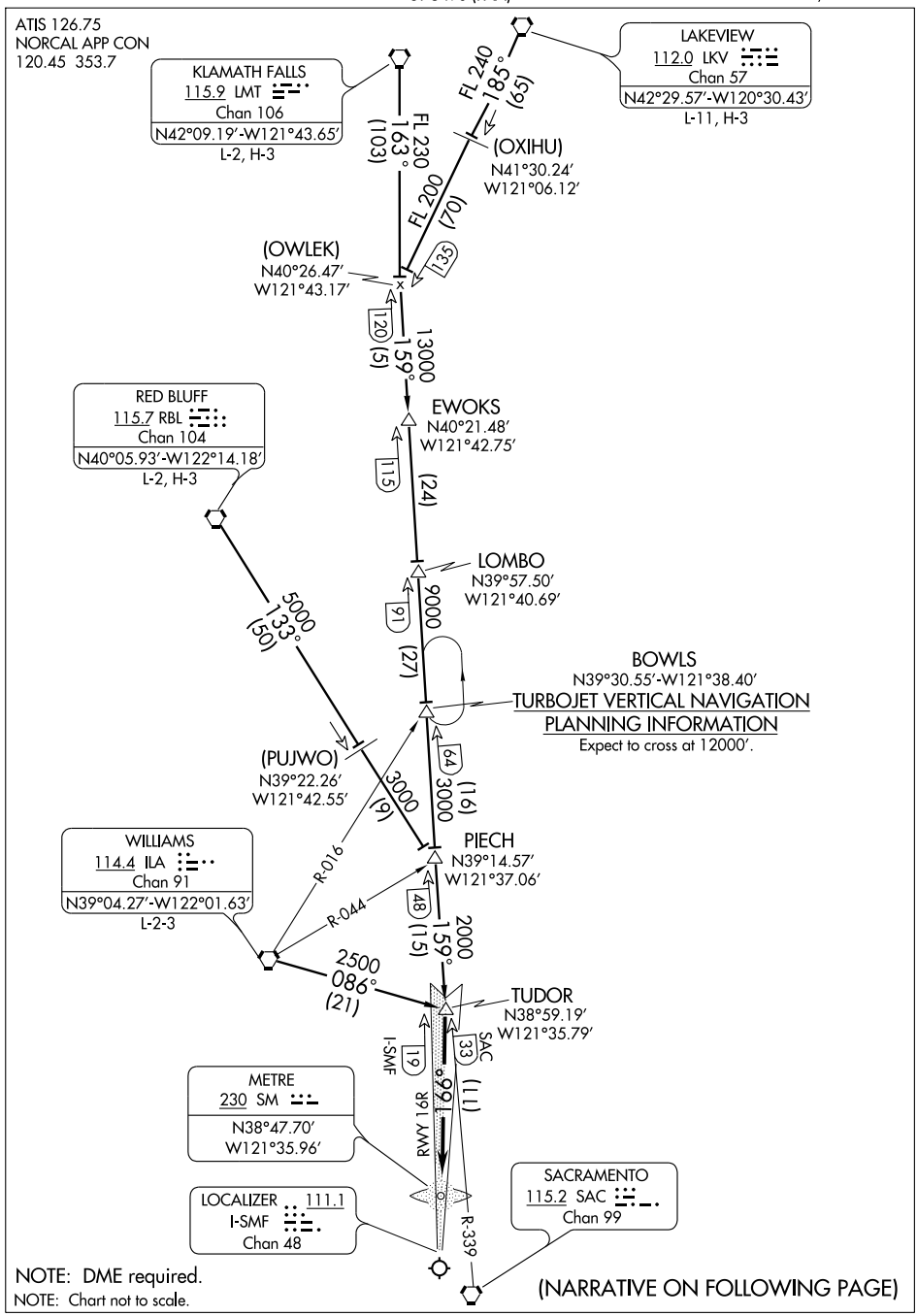
SW-2, 14 JAN 2010 to 11 FEB 2010

(TUDOR.TUDOR1) 09127

TUDOR ONE ARRIVAL

ST-5490 (FAA)

SACRAMENTO INTL
SACRAMENTO, CALIFORNIA



SW-2, 14 JAN 2010 to 11 FEB 2010

TUDOR ONE ARRIVAL

ARRIVAL DESCRIPTION

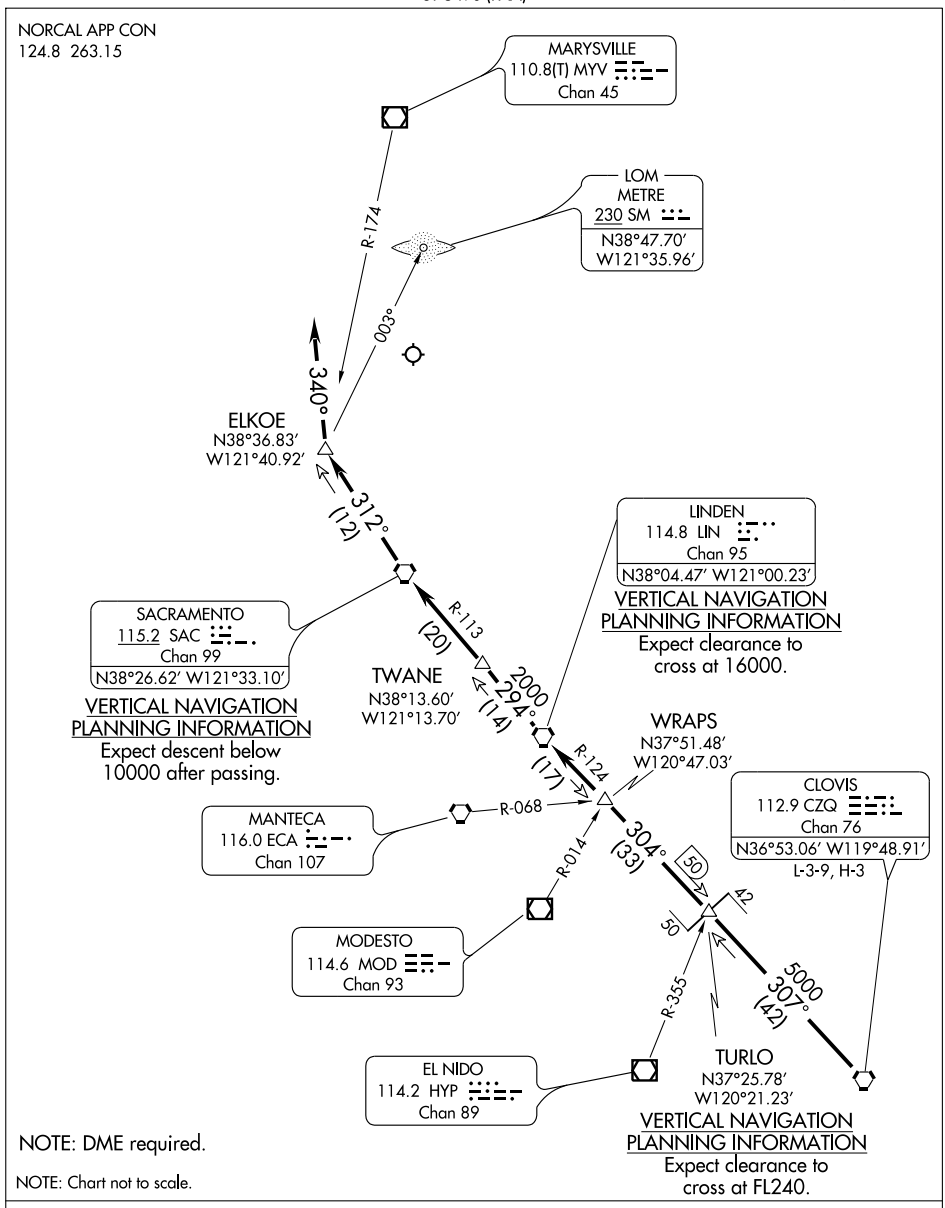
KLAMATH FALLS TRANSITION(LMT.TUDOR1): From over LMT VORTAC via LMT R-163 and SAC R-339 to TUDOR INT. Thence . . . .
LAKEVIEW TRANSITION (LKV.TUDOR1): From over LKV VORTAC via LKV R-185 and SAC R-339 to TUDOR INT. Thence . . . .
RED BLUFF TRANSITION (RBL.TUDOR1): From over RBL VORTAC via RBL R-133 and SAC R-339 to TUDOR INT. Thence . . . .
WILLIAMS TRANSITION (ILA.TUDOR1): From over ILA VORTAC via ILA R-086 to TUDOR INT. Thence . . . .
. . . .From over TUDOR INT via I-SMF RWY 16R localizer course to SM LOM. Expect ILS RWY 16R approach.

SW-2, 14 JAN 2010 to 11 FEB 2010

WRAPS FIVE ARRIVAL

ST-5490 (FAA)

SACRAMENTO INTL
SACRAMENTO, CALIFORNIA



From over CZQ VORTAC via CZQ R-307 to TURLO INT, then via LIN R-124 to LIN VORTAC, then via LIN R-294 and SAC R-113 to SAC VORTAC, then via SAC R-312 to ELKOE INT, then via heading 340° for radar vector to final approach course.

LOST COMMUNICATIONS: After passing ELKOE INT proceed direct SM LOM.

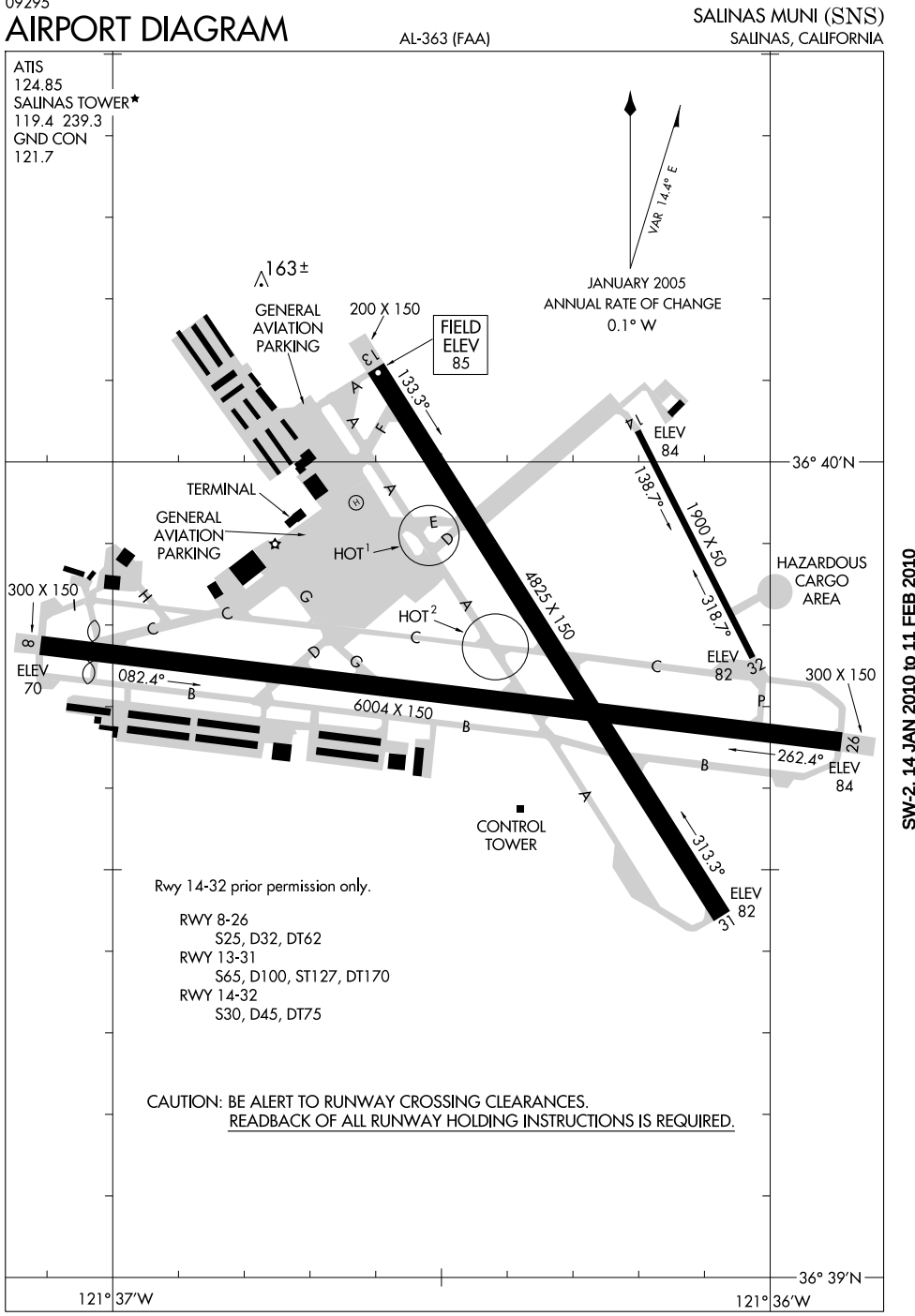
SW-2, 14 JAN 2010 to 11 FEB 2010

09295

AIRPORT DIAGRAM

AL-363 (FAA)

SALINAS MUNI (SNS)
SALINAS, CALIFORNIA

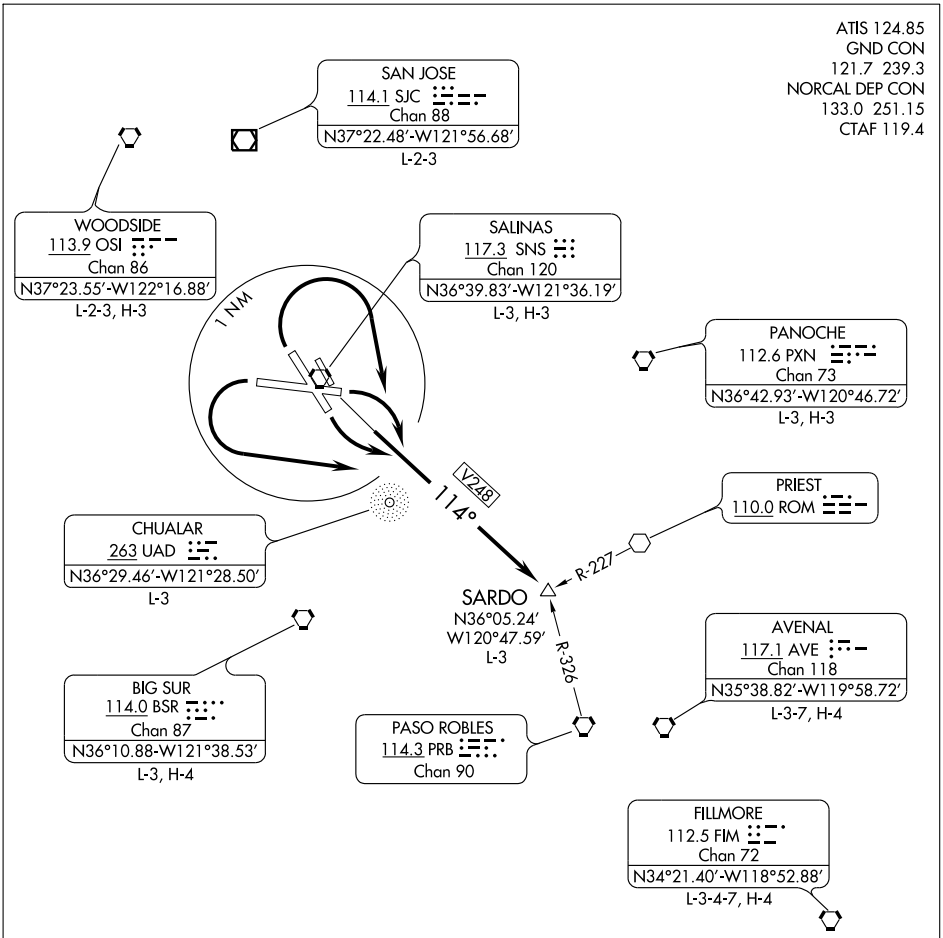


SW-2, 14 JAN 2010 to 11 FEB 2010

CHALONE TWO DEPARTURE

SL-363 (FAA)

SALINAS MUNI (SNS)
SALINAS, CALIFORNIA



NOTE: Rwys 8, 13 departures require a minimum climb of 360′ per NM to 6000′.
Rwys 26, 31 departures: Cats A and B require minimum climb of 360′ per NM to 6000′.
Cats C and D require minimum climb of 550′ per NM to 6000′.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

All aircraft climb outbound on the SNS R-114 (V248) to SARDO INT, then proceed on assigned route. Expect clearance to filed altitude five minutes after departure.

TAKE-OFF RUNWAYS 8 and 31: Turn right within 1 mile to intercept and climb via SNS R-114.

TAKE-OFF RUNWAYS 13 and 26: Turn left within 1 mile to intercept and climb via SNS R-114.

SW-2, 14 JAN 2010 to 11 FEB 2010

SALINAS, CALIFORNIA AL-363 (FAA)

LOC I-SNS	APP CRS	Rwy Idg	4825
108.5	311°	TDZE	82
		Apt Elev	85

ILS RWY 31
SALINAS MUNI (SNS)

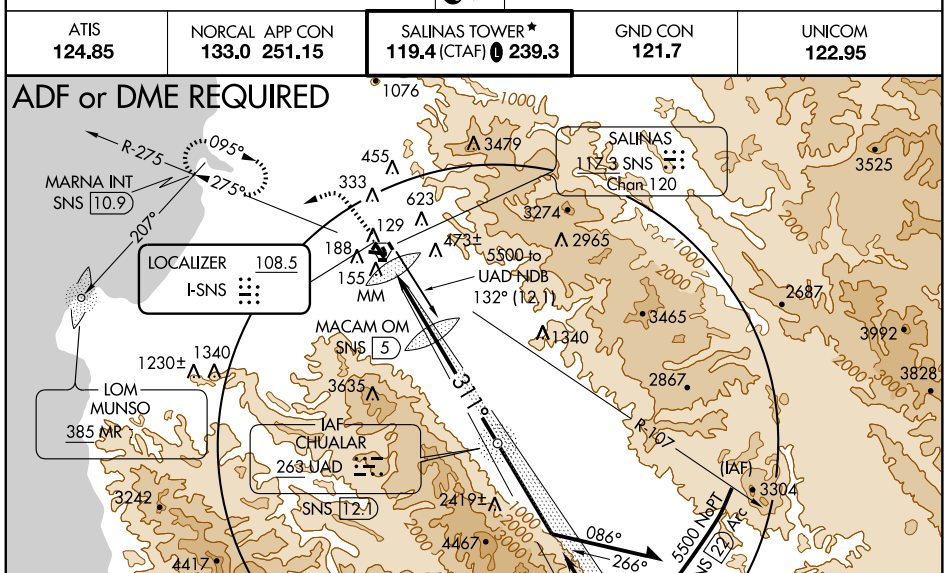
Circling requires descent on glide slope to CMDA.

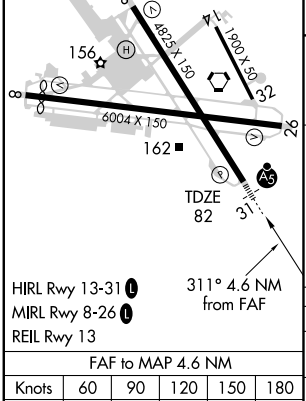
MALSR

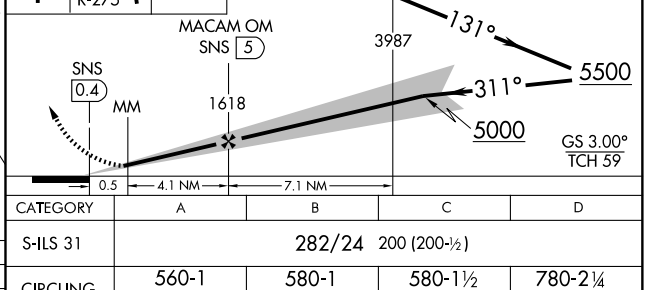
MISSED APPROACH: Climb to 800 then climbing left turn to 3000 via SNS R-275 to MARNA INT/10.9 DME and hold.

ATIS	NORCAL APP CON	SALINAS TOWER ★	GND CON	UNICOM
124.85	133.0 251.15	119.4 (CTAF) L 239.3	121.7	122.95

ADF or DME REQUIRED







FAF to MAP 4.6 NM					
Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

CATEGORY	A	B	C	D
S-ILS 31	282/24 200 (200-½)			
CIRCLING	560-1 475 (500-1)	580-1 495 (500-1)	580-1½ 495 (500-1½)	780-2¼ 695 (700-2¼)

SW-2, 14 JAN 2010 to 11 FEB 2010

SALINAS, CALIFORNIA

AL-363 (FAA)

LOC I-SNS	APP CRS	Rwy Idg	4825
108.5	311°	TDZE	79
		Apt Elev	84

LOC/DME RWY 31

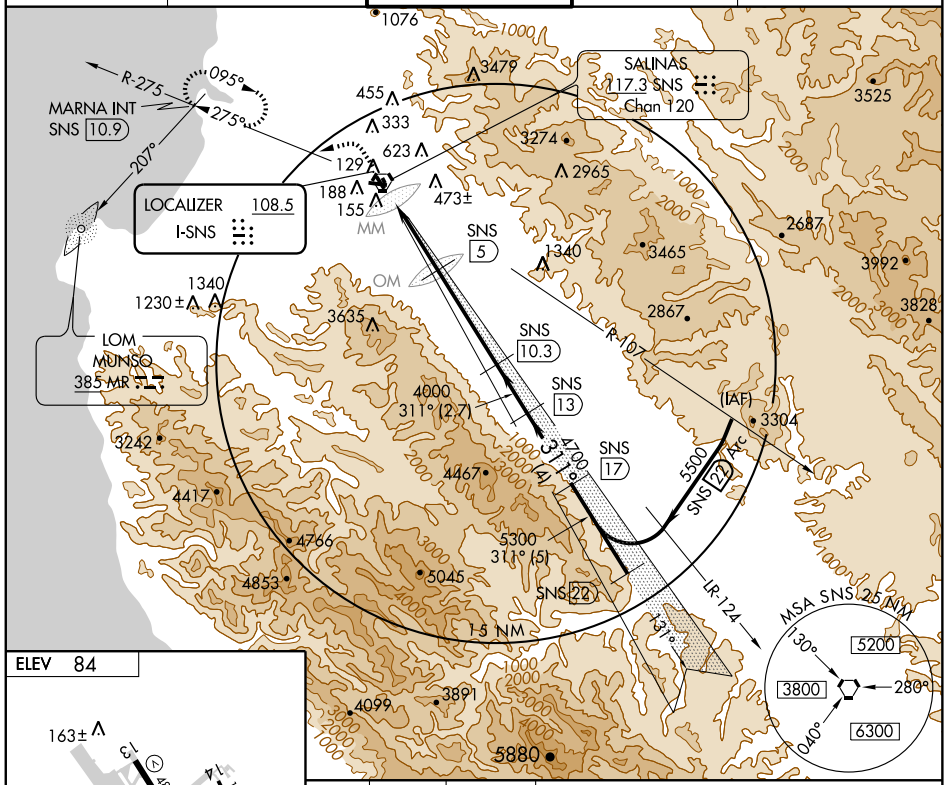
SALINAS MUNI (SNS)

For inoperative MALSR increase S-LOC 31 Cat D visibility to RVR 5000.
Simultaneous reception of I-SNS and SNS DME required.

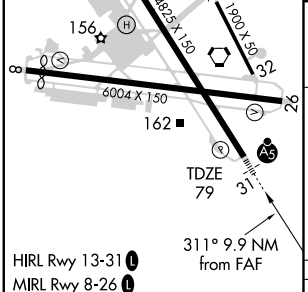
MALSR

MISSED APPROACH: Climb to 800 then climbing left turn to 3000 via SNS R-275 to MARNA INT/10.9 DME and hold.

ATIS	NORCAL APP CON	SALINAS TOWER ★	GND CON	UNICOM
124.85	133.0 251.15	119.4 (CTAF) L 239.3	121.7	122.95

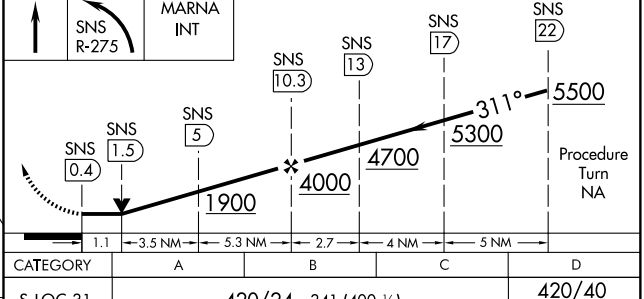


ELEV 84



HIRL Rwy 13-31 L
MIRL Rwy 8-26 L
REIL Rwy 13

Knots	60	90	120	150	180
Min:Sec					



CATEGORY	A	B	C	D
S-LOC 31	420/24 341 (400-½)			420/40 341 (400-¾)
CIRCLING	560-1 476 (500-1)	580-1 496 (500-1)	580-1½ 496 (500-1½)	780-2¼ 696 (700-2¼)

SW-2, 14 JAN 2010 to 11 FEB 2010

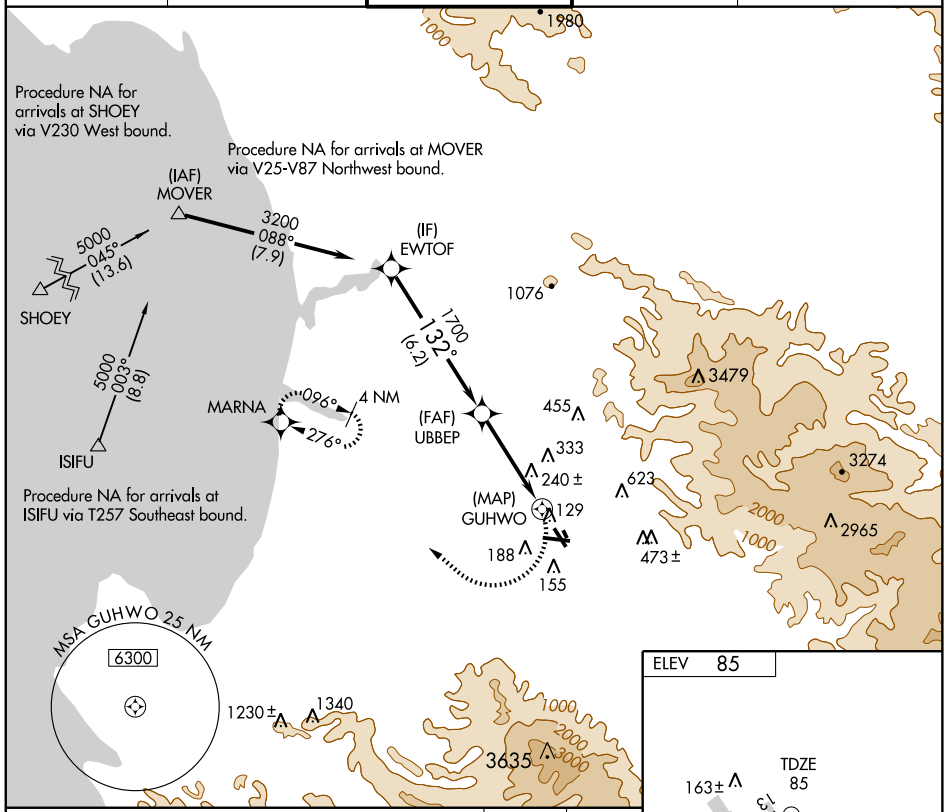
APP CRS	Rwy Idg	4825
132°	TDZE	85
	Apt Elev	85

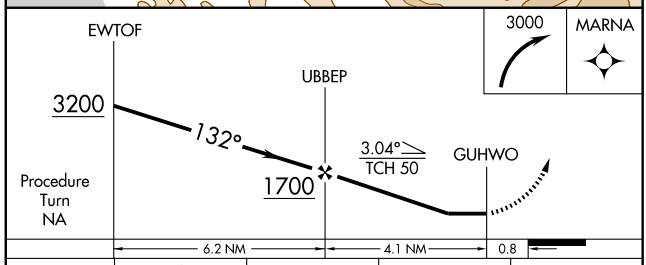
RNAV (GPS) RWY 13
SALINAS MUNI (SNS)

DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use Monterey Peninsula altimeter setting and increase all MDA 60 feet and increase LNAV Cat C and D visibility ¼ mile.

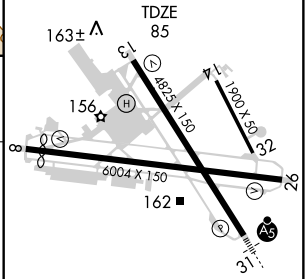
MISSED APPROACH: Climbing right turn to 3000 direct MARNA and hold.

ATIS	NORCAL APP CON	SALINAS TOWER★	GND CON	UNICOM
124.85	133.0 251.15	119.4 (CTAF) Ⓛ 239.3	121.7	122.95





CATEGORY	A	B	C	D
LNAV MDA	540-1	455 (500-1)	540-1¼ 455 (500-1¼)	540-1½ 455 (500-1½)
CIRCLING	540-1	455 (500-1)	540-1½ 455 (500-1½)	760-2¼ 675 (700-2¼)



HIRL Rwy 13-31 Ⓛ
MIRL Rwy 8-26 Ⓛ
REIL Rwy 13

SW-2, 14 JAN 2010 to 11 FEB 2010

SALINAS, CALIFORNIA

AL-363 (FAA)

APP CRS	Rwy Idg	4825
312°	TDZE	82
	Apt Elev	85

RNAV (GPS) Y RWY 31

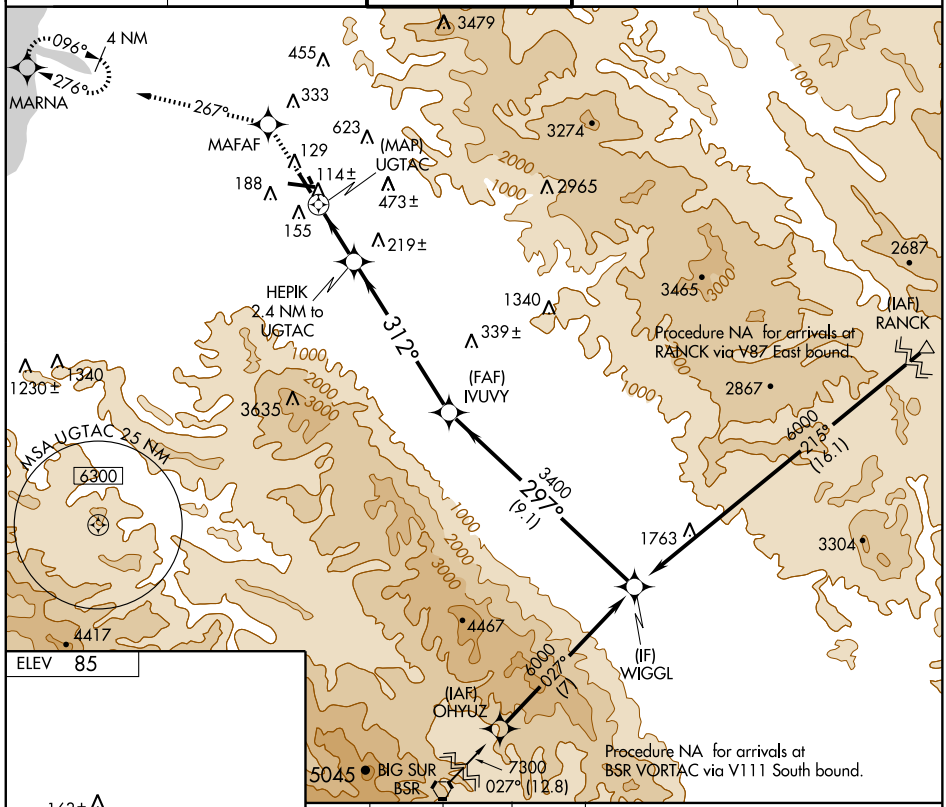
SALINAS MUNI (SNS)

For inoperative MALSR increase LNAV Cat D visibility to RVR 6000. DME/DME RNP-0.3 NA. When local altimeter not received, use Monterey Peninsula altimeter setting and increase all MDA 60 feet and increase LNAV Cat C visibility to RVR 4000.

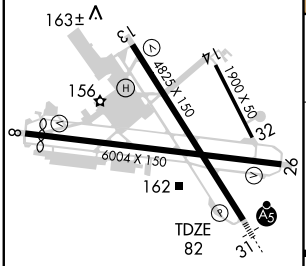
MALSR

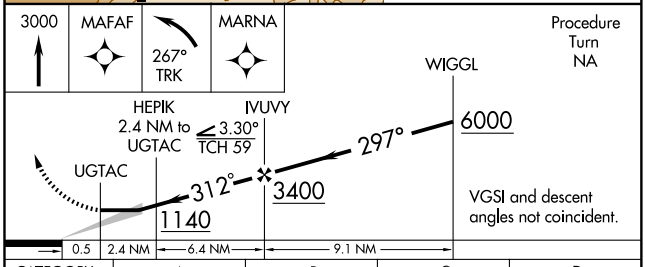
MISSED APPROACH: Climb to 3000 direct MAFAF and left turn via track 267° to MARNA and hold.

ATIS	NORCAL APP CON	SALINAS TOWER★	GND CON	UNICOM
124.85	133.0 251.15	119.4 (CTAF) L 239.3	121.7	122.95



ELEV 85





CATEGORY	A	B	C	D
LNAV MDA	440/24 358 (400-½)			440/50 358 (400-1)
CIRCLING	500-1 415 (500-1)	540-1 455 (500-1)	540-1½ 455 (500-1½)	760-2¼ 675 (700-2¼)

HIRL Rwy 13-31 L
MIRL Rwy 8-26 L
REIL Rwy 13

SW-2, 14 JAN 2010 to 11 FEB 2010

SALINAS, CALIFORNIA

AL-363 (FAA)

RNAV (GPS) Z RWY 31

SALINAS MUNI (SNS)

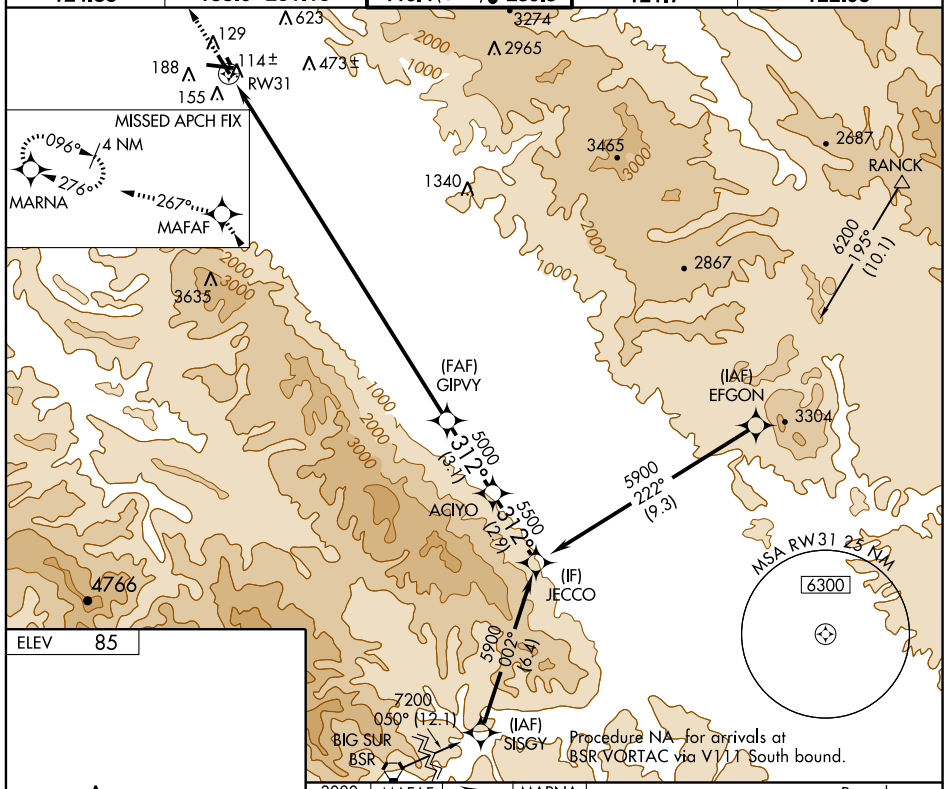
WAAS	APP CRS	Rwy Idg	4825
CH 69513	312°	TDZE	82
W31A		Apt Elev	85

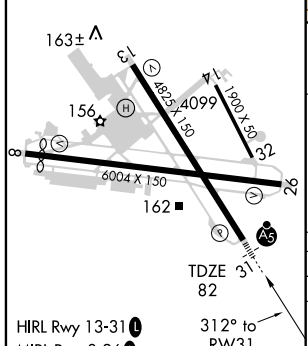
Baro-VNAV NA when using Monterey Peninsula altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 50°C (122°F). DME/DME RNP-0.3 NA. Circling requires descent on glidepath to MDA. When local altimeter not received, use Monterey Peninsula altimeter setting and increase all DA 53 feet and all MDA 60 feet and LNAV/VNAV all Cats visibility to RVR 5000 and increase circling Cats A and B visibility ¼ mile.

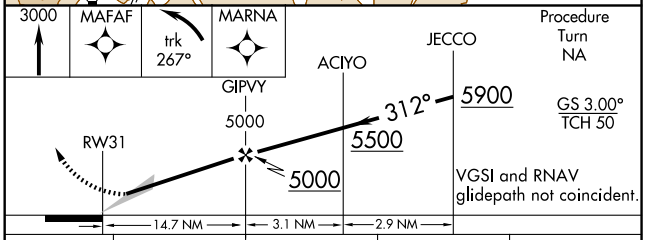
MALSR

MISSED APPROACH: Climb to 3000 direct MAFAF and left turn via track 267° to MARNA and hold.

ATIS	NORCAL APP CON	SALINAS TOWER ★	GND CON	UNICOM
124.85	133.0 251.15	119.4 (CTAF) L 239.3	121.7	122.95





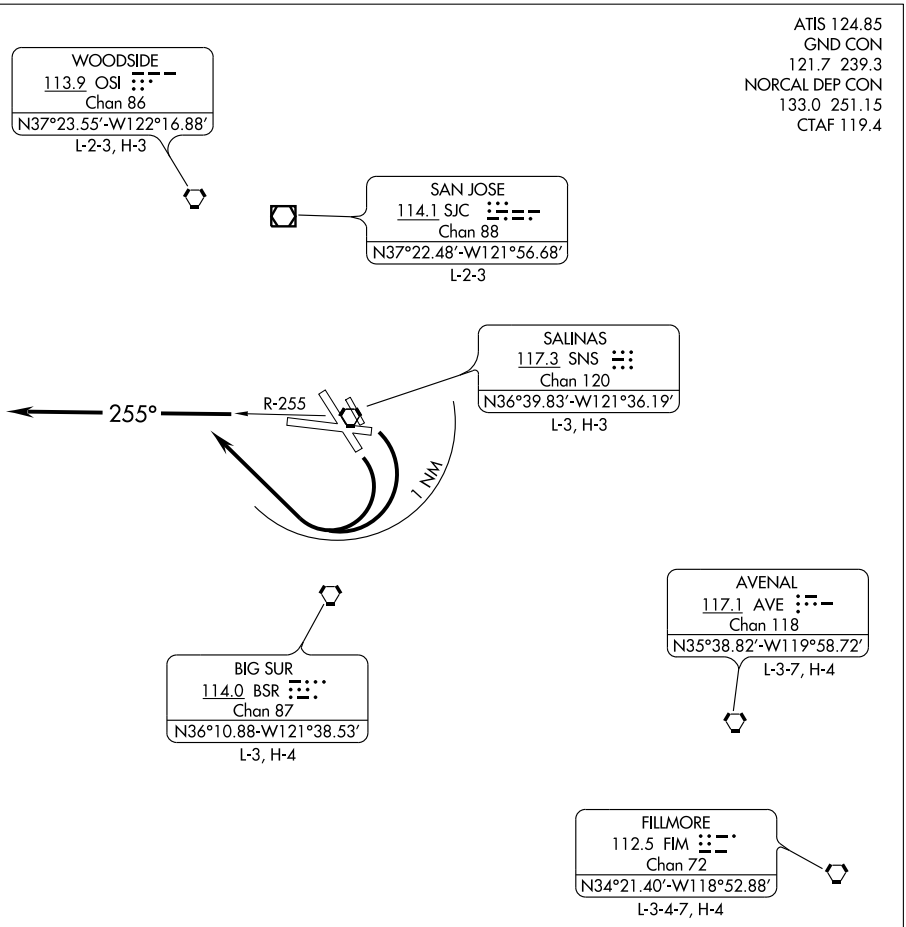


CATEGORY	A	B	C	D
LPV DA	282/24 200 (200-½)			
LNAV/VNAV DA	478/40 396 (400-¾)			
CIRCLING	500-1¼ 415 (500-1¼)	540-1¼ 455 (500-1¼)	540-1½ 455 (500-1½)	760-2¼ 675 (700-2¼)

SW-2, 14 JAN 2010 to 11 FEB 2010

SALINAS TWO DEPARTURE

SL-363 (FAA)



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

All aircraft expect vectors to assigned route. Maintain 6000'. Expect clearance to filed altitude five minutes after departure.

TAKE-OFF RUNWAYS 8 and 13: Turn right within one mile to intercept and climb via SNS R-255 for vector.

TAKE-OFF RUNWAYS 26 and 31: Climb on SNS R-255 for vector.

SALINAS, CALIFORNIA

AL-363 (FAA)

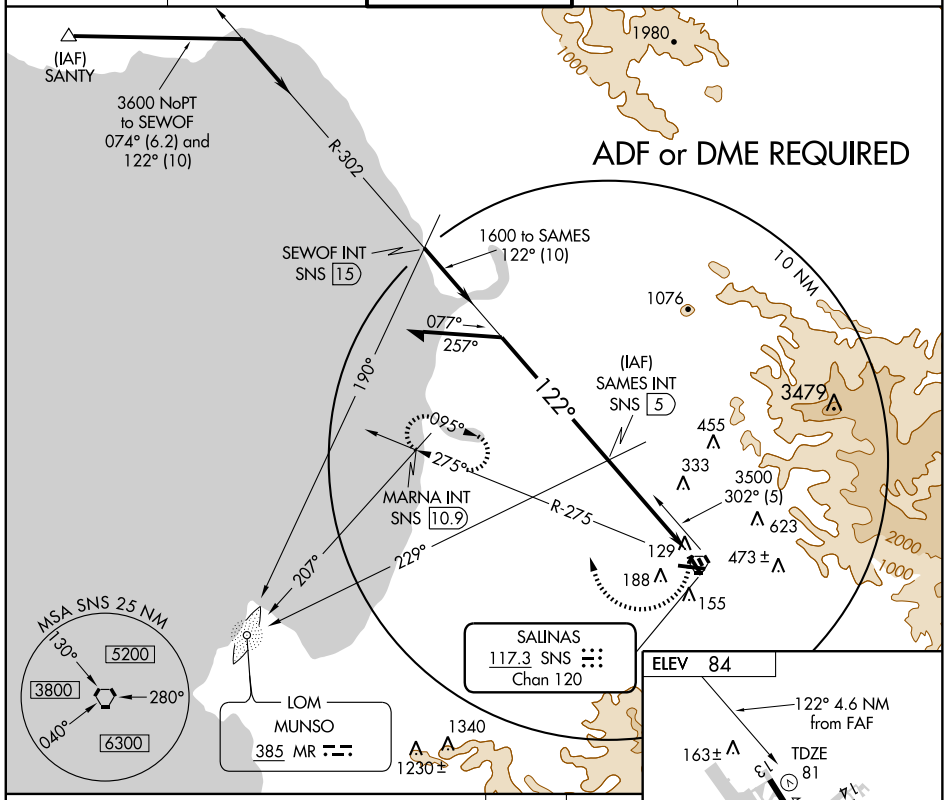
VORTAC SNS 117.3 Chan 120	APP CRS 122°	Rwy Idg 4825 TDZE 81 Apt Elev 84

VOR RWY 13

SALINAS MUNI (SNS)

MISSED APPROACH: Climbing right turn to 3000 via SNS R-275 to MARNA INT and hold.

ATIS	NORCAL APP CON	SALINAS TOWER★	GND CON	UNICOM
124.85	133.0 251.15	119.4 (CTAF) L 239.3	121.7	122.95



CATEGORY	A	B	C	D
S-13	500-1 419 (500-1)		500-1¼ 419 (500-1¼)	1020-3 939 (1000-3)
CIRCLING	560-1 476 (500-1)	580-1 496 (500-1)	580-1½ 496 (500-1½)	1020-3 936 (1000-3)

FAF to MAP 4 NM

Knots	60	90	120	150	180
Min:Sec	4:00	2:40	2:00	1:36	1:20

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN ANDREAS, CALIFORNIA

AL-6708 (FAA)

APP CRS	Rwy Idg	3603
311°	TDZE	1325
	Apt Elev	1325

GPS RWY 31

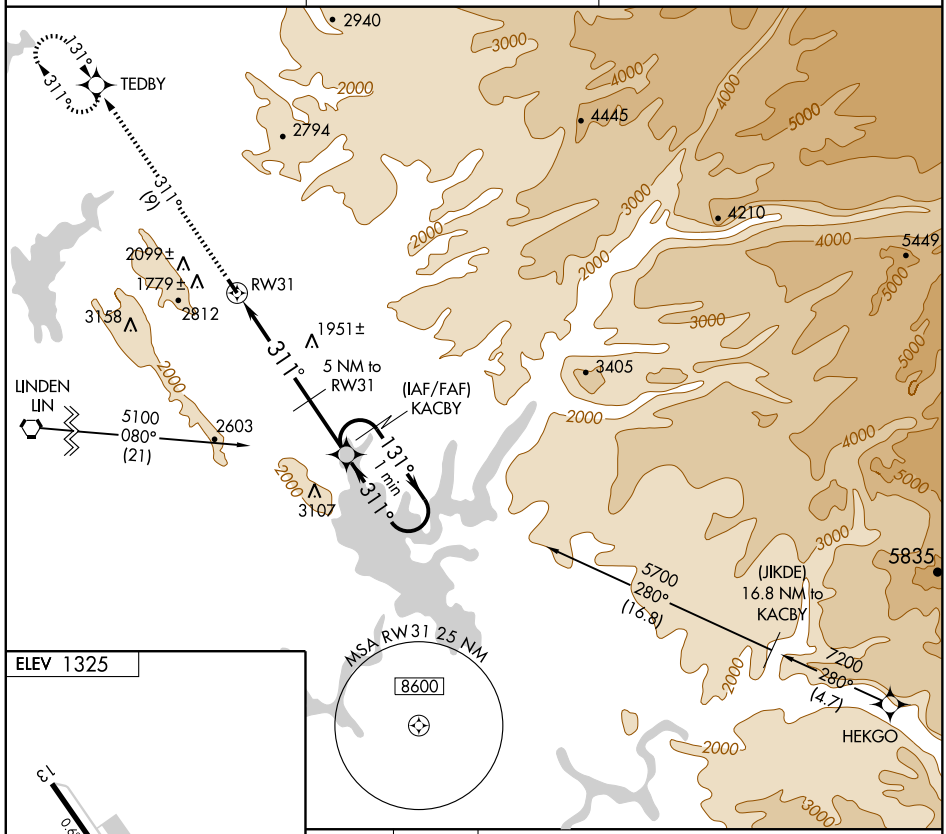
SAN ANDREAS/CALAVERAS COUNTY-MAURY RASMUSSEN FIELD (CPU)

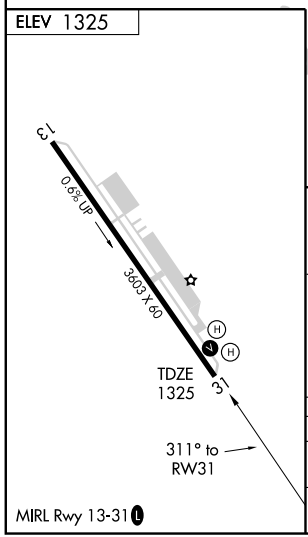
T
NA

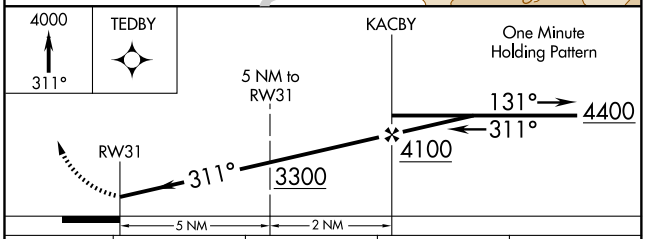
Circling not authorized west of Rwy 13-31.

MISSED APPROACH: Climb to 4000 via 311° course to TEDBY WP and hold.

AWOS-3	OAKLAND CENTER	UNICOM
118.525	126.85 322.55	123.0 (CTAF) L







CATEGORY	A	B	C	D
S-31	2240-1¼	915 (1000-1¼)	NA	
CIRCLING	2240-1¼	915 (1000-1¼)	NA	

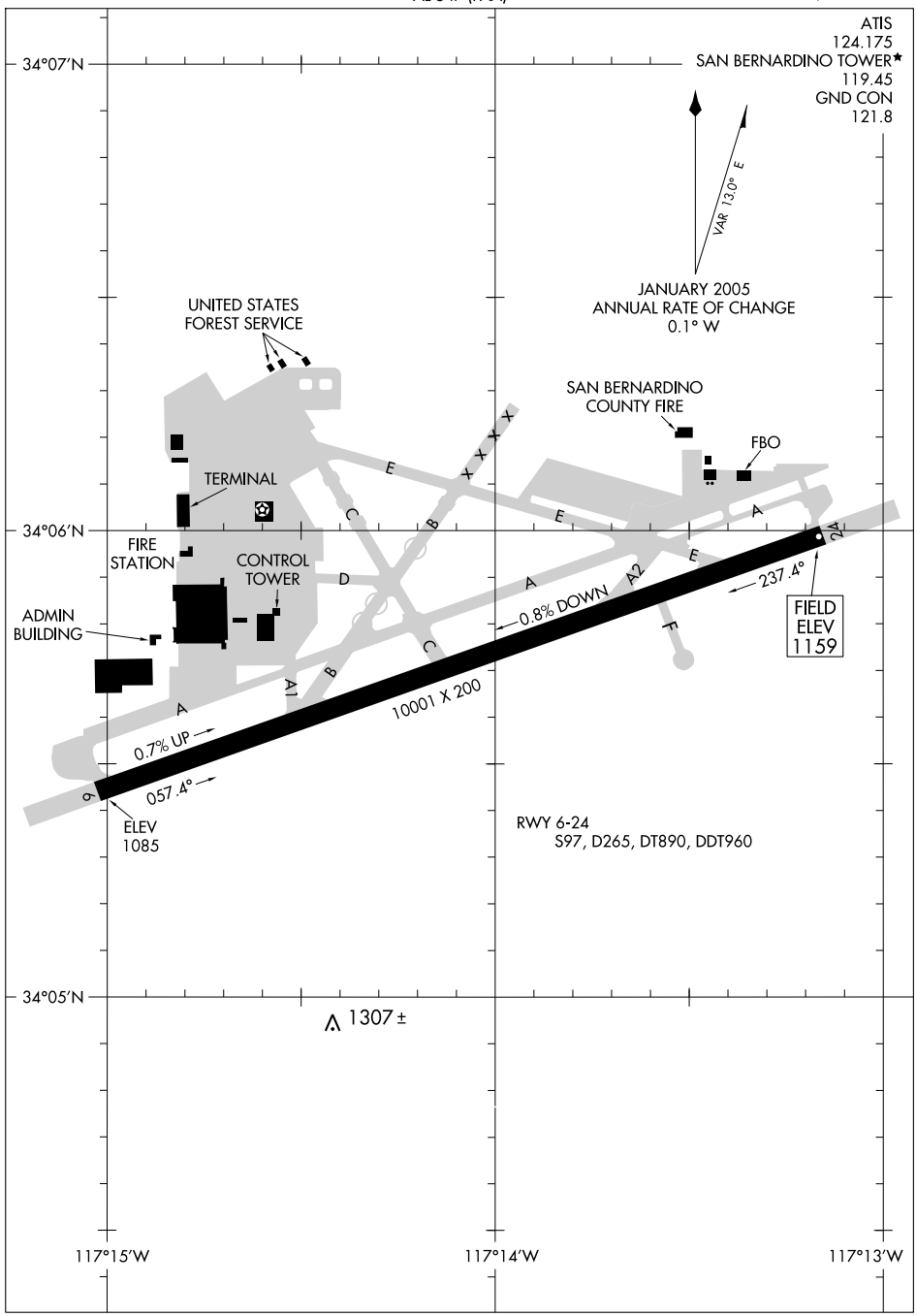
SW-2, 14 JAN 2010 to 11 FEB 2010

09071

AIRPORT DIAGRAM

AL-547 (FAA)

SAN BERNARDINO INTL (SBD)
SAN BERNARDINO, CALIFORNIA



SW-3, 14 JAN 2010 to 11 FEB 2010

LOC I-SBD	APP CRS	Rwy Idg	10001
109.3	057°	TDZE	1091
		Apt Elev	1159

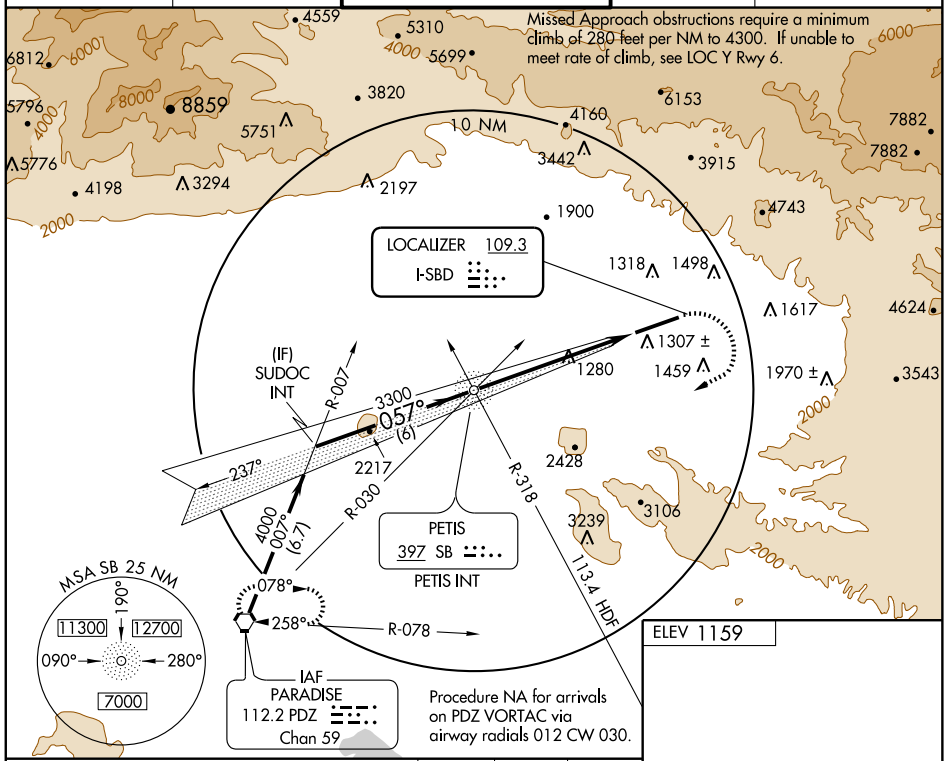
ILS or LOC Z RWY 6

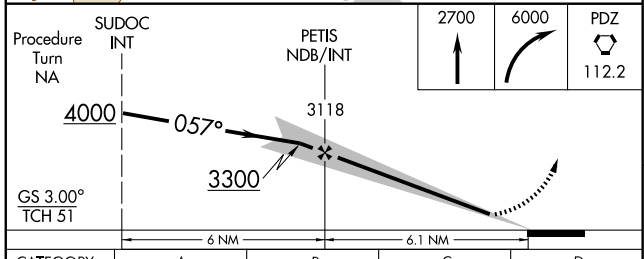
SAN BERNARDINO INTL (SBD)

When local altimeter setting not received, use Ontario Intl altimeter setting and increase all DA to 1662 feet and all visibilities ¼ mile. Increase all MDA 80 feet and S-LOC Cat C/D visibilities ¼ mile and Circling Cat C ¼ mile and Cat D ½ mile. Circling NA north of Rwy 6-24. Visibility reduction by helicopters NA.

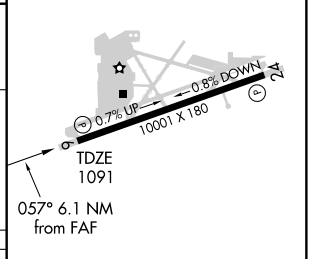
MISSED APPROACH: Climb to 2700, then climbing right turn to 6000 direct PDZ VORTAC and hold, continue climb-in-hold to 6000.

ATIS	SOCAL APP CON	SAN BERNARDINO TOWER ★	GND CON	UNICOM
124.175	127.25 318.2	119.45 (CTAF) L	121.8	122.975





CATEGORY	A	B	C	D
S-ILS 6	1589-1¾ 498 (500-1¾)			
S-LOC 6	1640-1¼ 549 (600-1¼)		1640-1½ 549 (600-1½)	1640-1¾ 549 (600-1¾)
CIRCLING	1640-1¼ 481 (500-1¼)		1660-1½ 501 (600-1½)	1820-2 661 (700-2)



HIRL Rwy 6-24 L

FAF to MAP 5.1 NM

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC I-SBD	APP CRS	Rwy Idg	10001
109.3	057°	TDZE	1091
		Apt Elev	1159

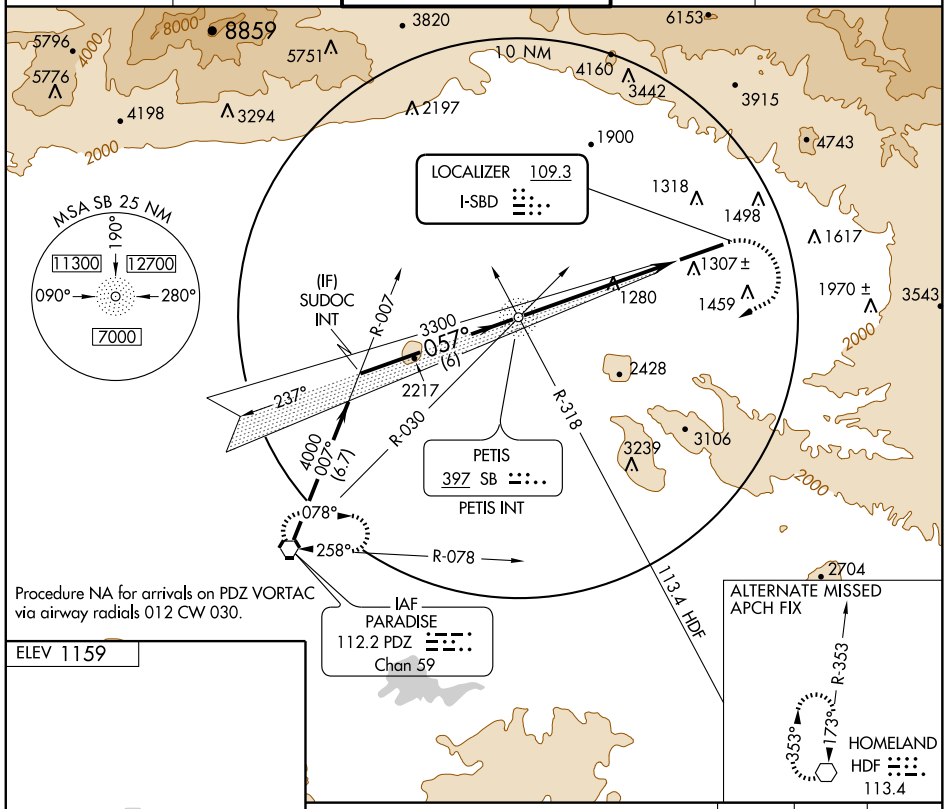
LOC Y RWY 6
SAN BERNARDINO INTL (SBD)

T
A NA

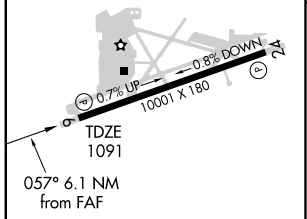
If local altimeter setting not received, use Ontario Intl altimeter setting and increase all MDAs 80 feet.
Circling NA north of Rwy 6-24.
Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 3100, then climbing right turn to 6000 direct PDZ VORTAC and hold, continue climb-in-hold to 6000.

ATIS	SOCAL APP CON	SAN BERNARDINO TOWER★	GND CON	UNICOM
124.175	127.25 318.2	119.45 (CTAF) L	121.8	122.975

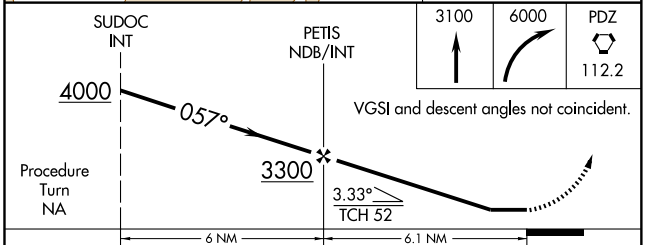


ELEV 1159



HIRL Rwy 6-24 L

FAF to MAP 6.1 NM					
Knots	60	90	120	150	180
Min:Sec	6:06	4:04	3:03	2:26	2:02



CATEGORY	A	B	C	D
S-6	2480-1¼ 1389 (1400-1¼)	2480-1½ 1389 (1400-1½)	2480-3	1389 (1400-3)
CIRCLING	2480-1¼ 1321 (1400-1¼)	2480-1½ 1321 (1400-1½)	2480-3	1321 (1400-3)

SW-3, 14 JAN 2010 to 11 FEB 2010

NDB SB	APP CRS	Rwy Idg	10001
397	056°	TDZE	1091
		Apt Elev	1159

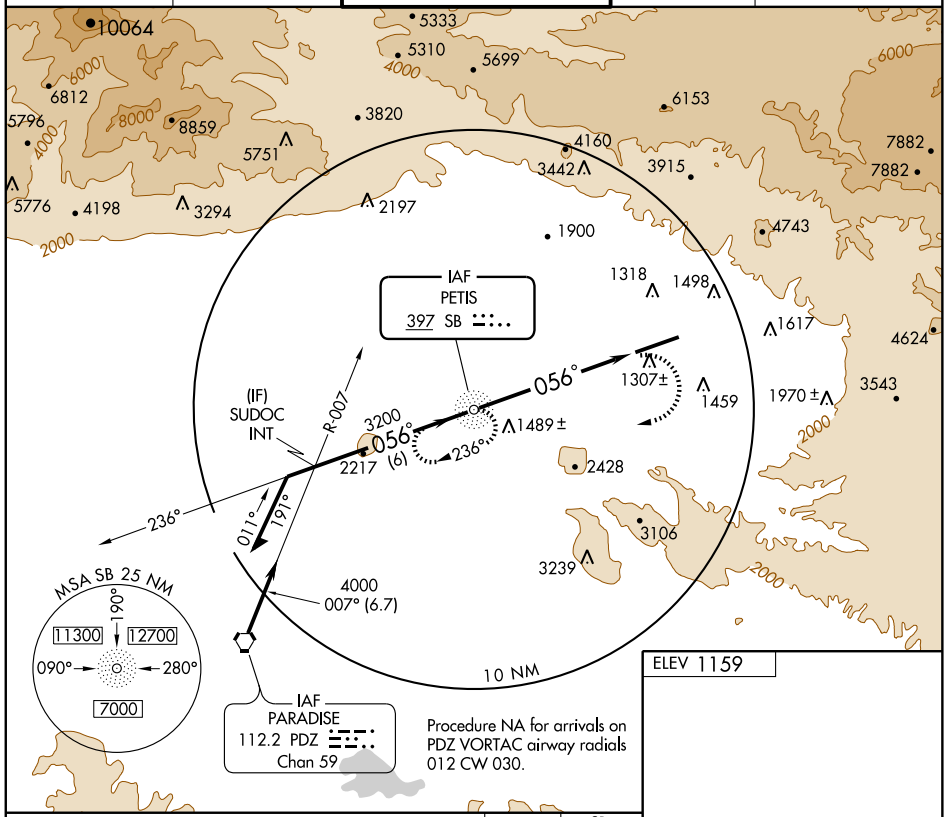
NDB RWY 6

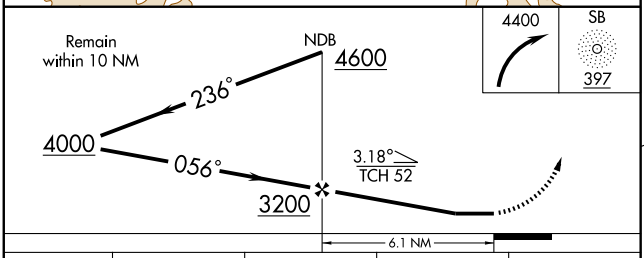
SAN BERNARDINO INTL (SBD)

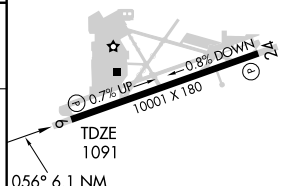
T NA — When local altimeter setting not received, procedure NA.
Circling NA north of Rwy 6-24.
Visibility reduction by helicopters NA.

MISSED APPROACH: Climbing right turn to 4400 direct SB NDB and hold, continue climb-in-hold to 4400.

ATIS	SOCAL APP CON	SAN BERNARDINO TOWER ★	GND CON	UNICOM
124.175	127.25 318.2	119.45 (CTAF) L	121.8	122.975







ELEV 1159

HIRL Rwy 6-24 L

CATEGORY	A	B	C	D
S-6	2540-1¼ 1449 (1400-1¼)	2540-1½ 1449 (1400-1½)	2540-3	1449 (1400-3)
CIRCLING	2540-1¼ 1381 (1400-1¼)	2540-1½ 1381 (1400-1½)	2540-3	1381 (1400-3)

FAF to MAP 6.1 NM

Knots	60	90	120	150	180
Min:Sec	6:06	4:04	3:03	2:26	2:02

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	10001
057°	TDZE	1091
	Apt Elev	1159

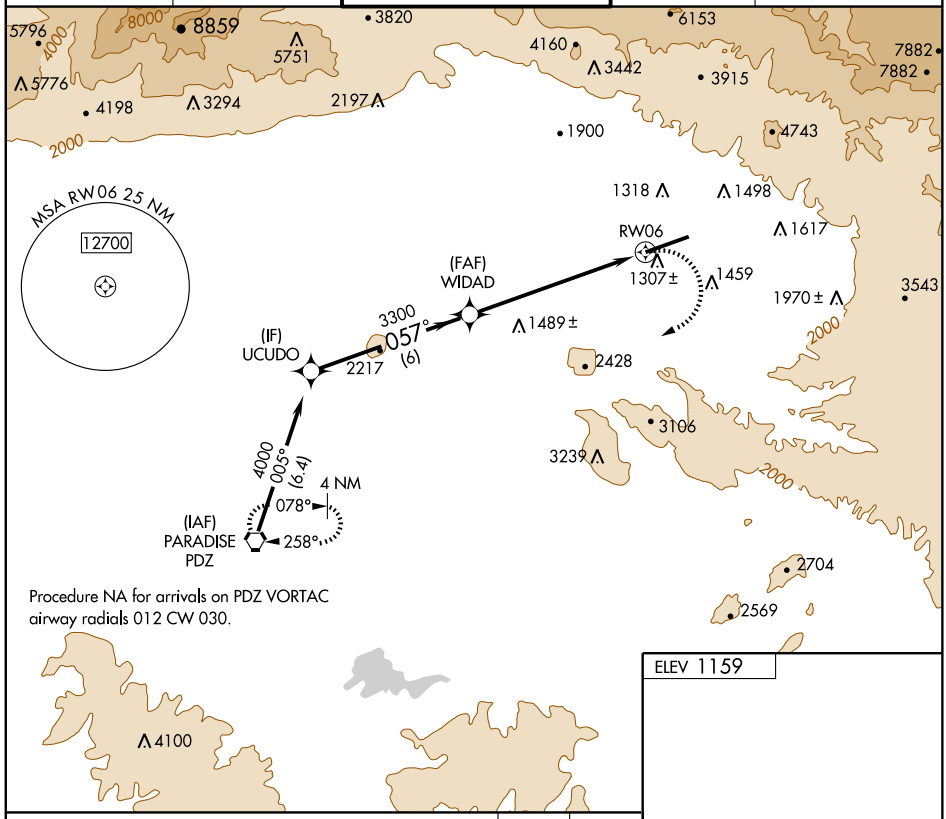
RNAV (GPS) Y RWY 6

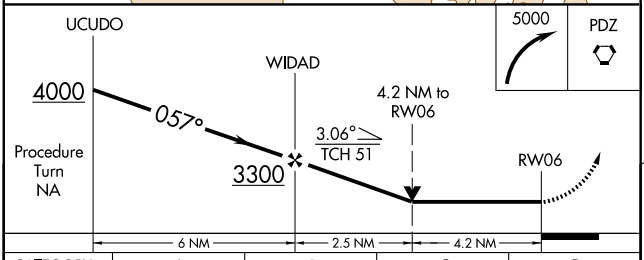
SAN BERNARDINO INTL (SBD)

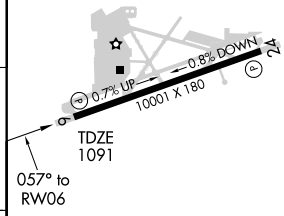
Circling NA north of Rwys 6 and 24. DME/DME RNP -0.3 NA.
Visibility reduction by helicopters NA.
When local altimeter setting not received, procedure NA.

MISSED APPROACH: Climbing right turn to 5000 direct PDZ VORTAC and hold.

ATIS	SOCAL APP CON	SAN BERNARDINO TOWER ★	GND CON	UNICOM
124.175	127.25 318.2	119.45 (CTAF) L	121.8	122.975







CATEGORY	A	B	C	D
LNAV MDA	2480-1¼ 1389 (1400-1¼)	2480-1½ 1389 (1400-1½)	2480-3 1389 (1400-3)	
CIRCLING	2480-1¼ 1321 (1400-1¼)	2480-1½ 1321 (1400-1½)	2480-3 1321 (1400-3)	

HIRL Rwy 6-24 L

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	10001
057°	TDZE	1091
	Apt Elev	1159

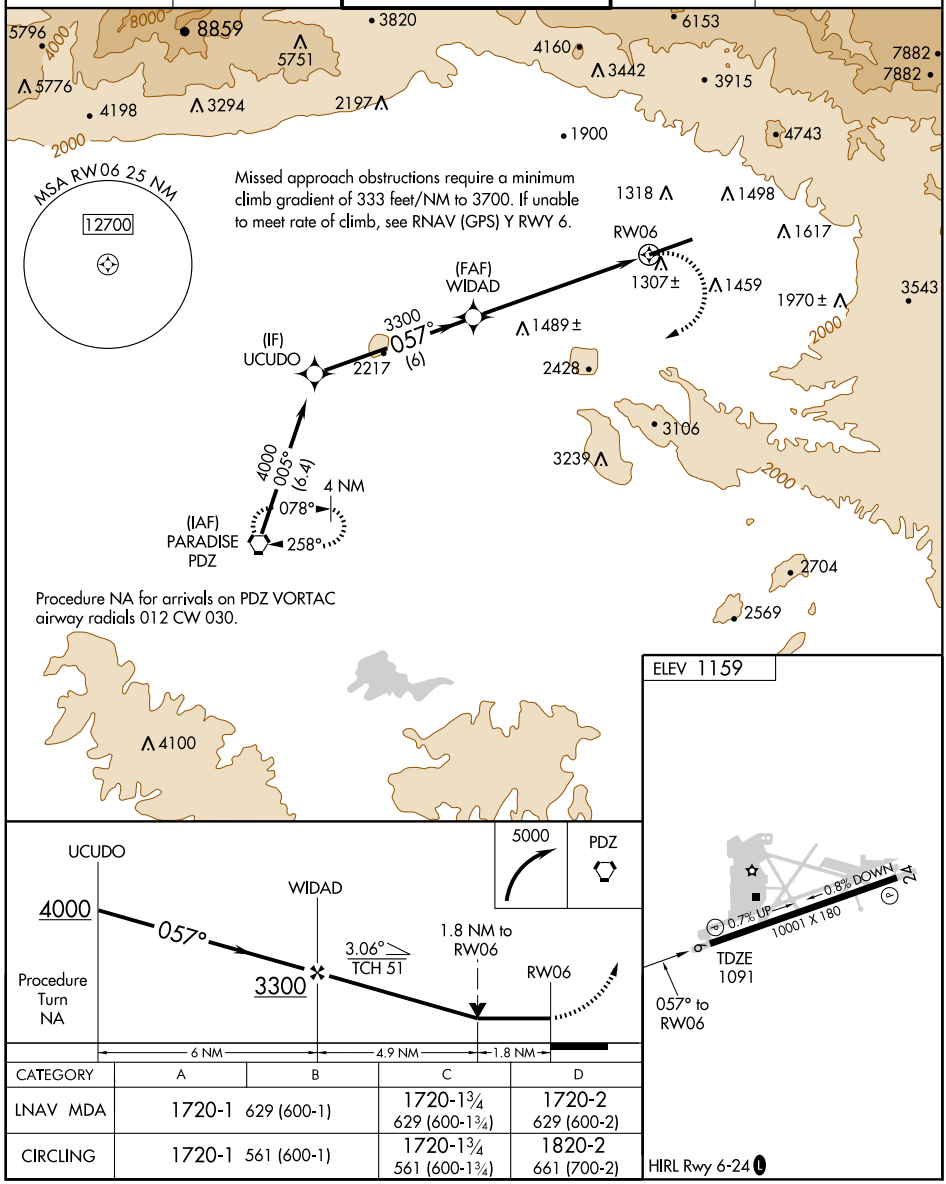
RNAV (GPS) Z RWY 6

SAN BERNARDINO INTL (SBD)

Circling NA north of Rwys 6 and 24. DME/DME RNP -0.3 NA.
Visibility reduction by helicopters NA.
When local altimeter setting not received, procedure NA.

MISSED APPROACH: Climbing right turn to 5000 direct PDZ VORTAC and hold.

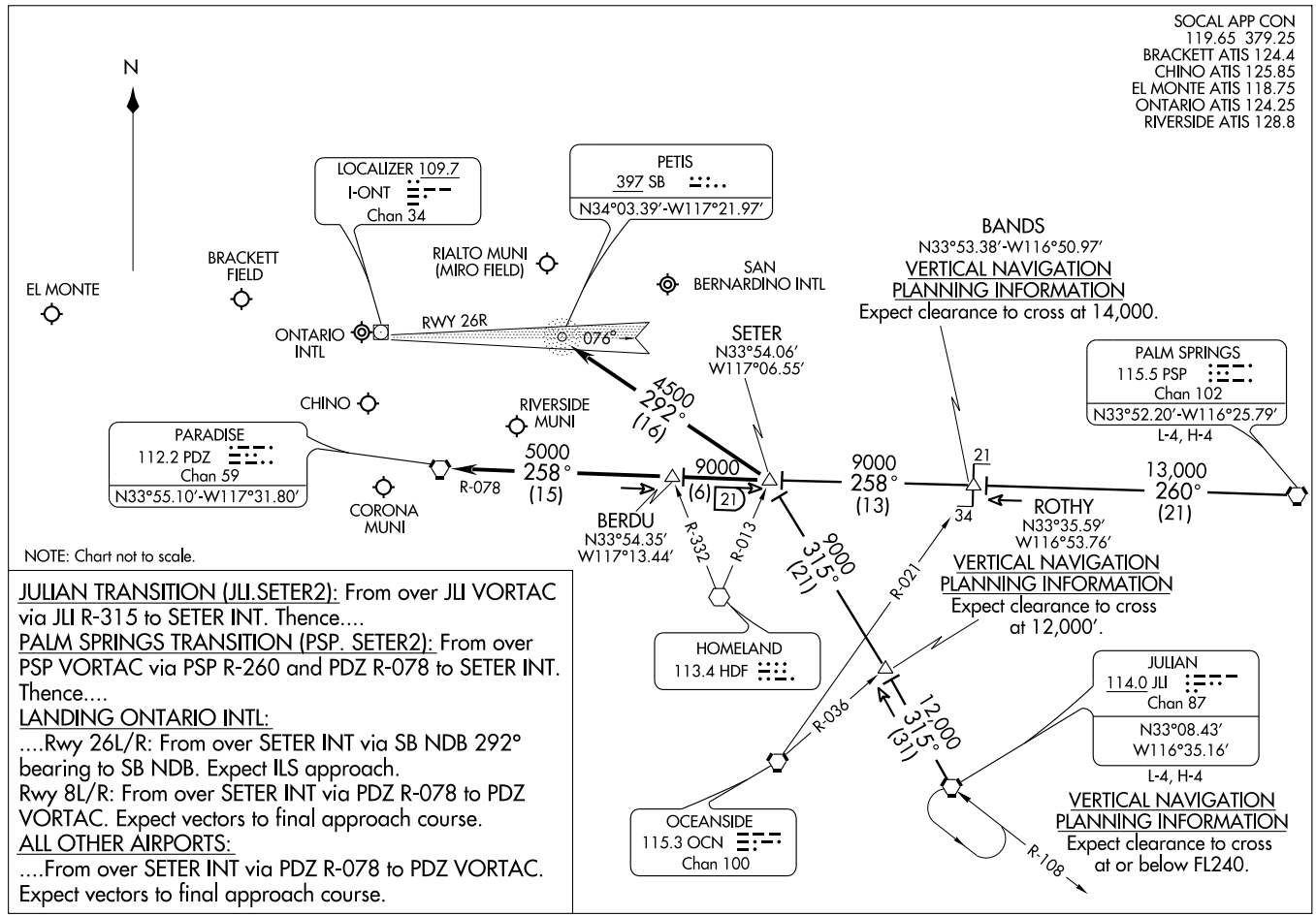
ATIS	SOCAL APP CON	SAN BERNARDINO TOWER ★	GND CON	UNICOM
124.175	127.25 318.2	119.45 (CTAF) L	121.8	122.975



CATEGORY	A	B	C	D
LNAV MDA	1720-1	629 (600-1)	1720-1¾ 629 (600-1¾)	1720-2 629 (600-2)
CIRCLING	1720-1	561 (600-1)	1720-1¾ 561 (600-1¾)	1820-2 661 (700-2)

HIRL Rwy 6-24 L

SW-3, 14 JAN 2010 to 11 FEB 2010



NOTE: Chart not to scale.

JULIAN TRANSITION (JLI.SETER2): From over JLI VORTAC via JLI R-315 to SETER INT. Thence....

PALM SPRINGS TRANSITION (PSP. SETER2): From over PSP VORTAC via PSP R-260 and PDZ R-078 to SETER INT. Thence....

LANDING ONTARIO INTL:

....Rwy 26L/R: From over SETER INT via SB NDB 292° bearing to SB NDB. Expect ILS approach.

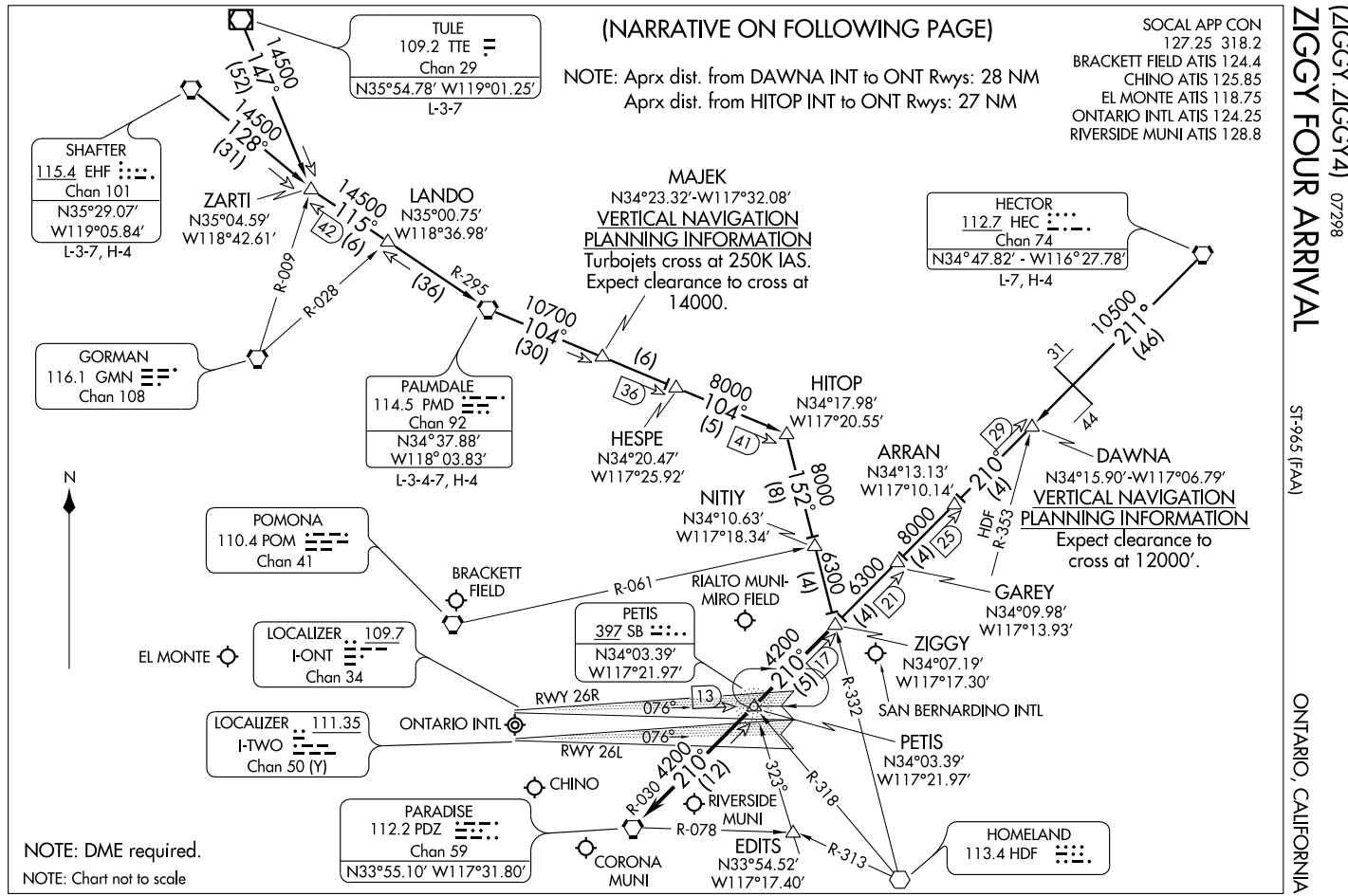
Rwy 8L/R: From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ALL OTHER AIRPORTS:

....From over SETER INT via PDZ R-078 to PDZ VORTAC. Expect vectors to final approach course.

ST-965 (FAA)

ONTARIO, CALIFORNIA


(NARRATIVE ON FOLLOWING PAGE)
NOTE: Aprx dist. from DAWNA INT to ONT Rwys: 28 NM
Aprx dist. from HITOP INT to ONT Rwys: 27 NM
SOCAL APP CON
127.25 318.2
BRACKETT FIELD ATIS 124.4
CHINO ATIS 125.85
EL MONTE ATIS 118.75
ONTARIO INTL ATIS 124.25
RIVERSIDE MUNI ATIS 128.8
ZIGGY FOUR ARRIVAL
(ZIGGY.ZIGGY4) 07298
ST-965 (FAA)
ONTARIO, CALIFORNIA
TULE
109.2 TTE
Chan 29
N35°54.78' W119°01.25'
L-3-7
SHAFTER
115.4 EHF
Chan 101
N35°29.07'
W119°05.84'
L-3-7, H-4
ZARTI
N35°04.59'
W118°42.61'
LANDO
N35°00.75'
W118°36.98'
MAJEK
N34°23.32'-W117°32.08'
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojets cross at 250K IAS.
Expect clearance to cross at
14000.
HECTOR
112.7 HEC
Chan 74
N34°47.82' - W116°27.78'
L-7, H-4
GORMAN
116.1 GMN
Chan 108
PALMDALE
114.5 PMD
Chan 92
N34°37.88'
W118°03.83'
L-3-4-7, H-4
HESPE
N34°20.47'
W117°25.92'
HITOP
N34°17.98'
W117°20.55'
ARRAN
N34°13.13'
W117°10.14'
DAWNA
N34°15.90'-W117°06.79'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect clearance to
cross at 12000'.
NITIY
N34°10.63'
W117°18.34'
POMONA
110.4 POM
Chan 41
BRACKETT
FIELD
RIALTO MUNI-
MIRO FIELD
GAREY
N34°09.98'
W117°13.93'
PETIS
397 SB
N34°03.39'
W117°21.97'
ZIGGY
N34°07.19'
W117°17.30'
EL MONTE
LOCALIZER 109.7
I-ONT
Chan 34
SAN BERNARDINO INTL
RWY 26R
RWY 26L
ONTARIO INTL
LOCALIZER 111.35
I-TWO
Chan 50 (Y)
PETIS
N34°03.39'
W117°21.97'
CHINO
PARADISE
112.2 PDZ
Chan 59
N33°55.10' W117°31.80'
RIVERSIDE
MUNI
CORONA
MUNI
EDITS
N33°54.52'
W117°17.40'
HOMELAND
113.4 HDF
NOTE: DME required.
NOTE: Chart not to scale
N

ZIGGY FOUR ARRIVAL

ARRIVAL ROUTE DESCRIPTION

HECTOR TRANSITION (HEC.ZIGGY4): From over HEC VORTAC via HEC R-211 and PDZ R-030 to ZIGGY INT. Thence . . . .

PALMDALE TRANSITION (PMD.ZIGGY4): From over PMD VORTAC via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

SHAFTER TRANSITION (EHF.ZIGGY4): From over EHF VORTAC via EHF R-128 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

TULE TRANSITION (TTE.ZIGGY4): From over TTE VOR/DME via TTE R-147 and PMD R-295 to PMD VORTAC, then via PMD R-104 to HITOP INT, then via HDF R-332 to ZIGGY INT. Thence . . . .

LANDING ONTARIO INTL:

. . . . RWY 8L/R: From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

. . . . RWY 26 L/R: From over ZIGGY INT via direct PETIS NDB or PDZ R-030 to PETIS INT; expect radar vectors for ILS approach.

ALL OTHER AIRPORTS:

. . . . From over ZIGGY INT via PDZ R-030 to PDZ VORTAC; expect radar vectors to final approach course.

LOST COMMUNICATIONS: For Rialto, California, NDB-A approach, proceed from PDZ VORTAC via PDZ R-078 to EDITS INT, maintain 4200'.

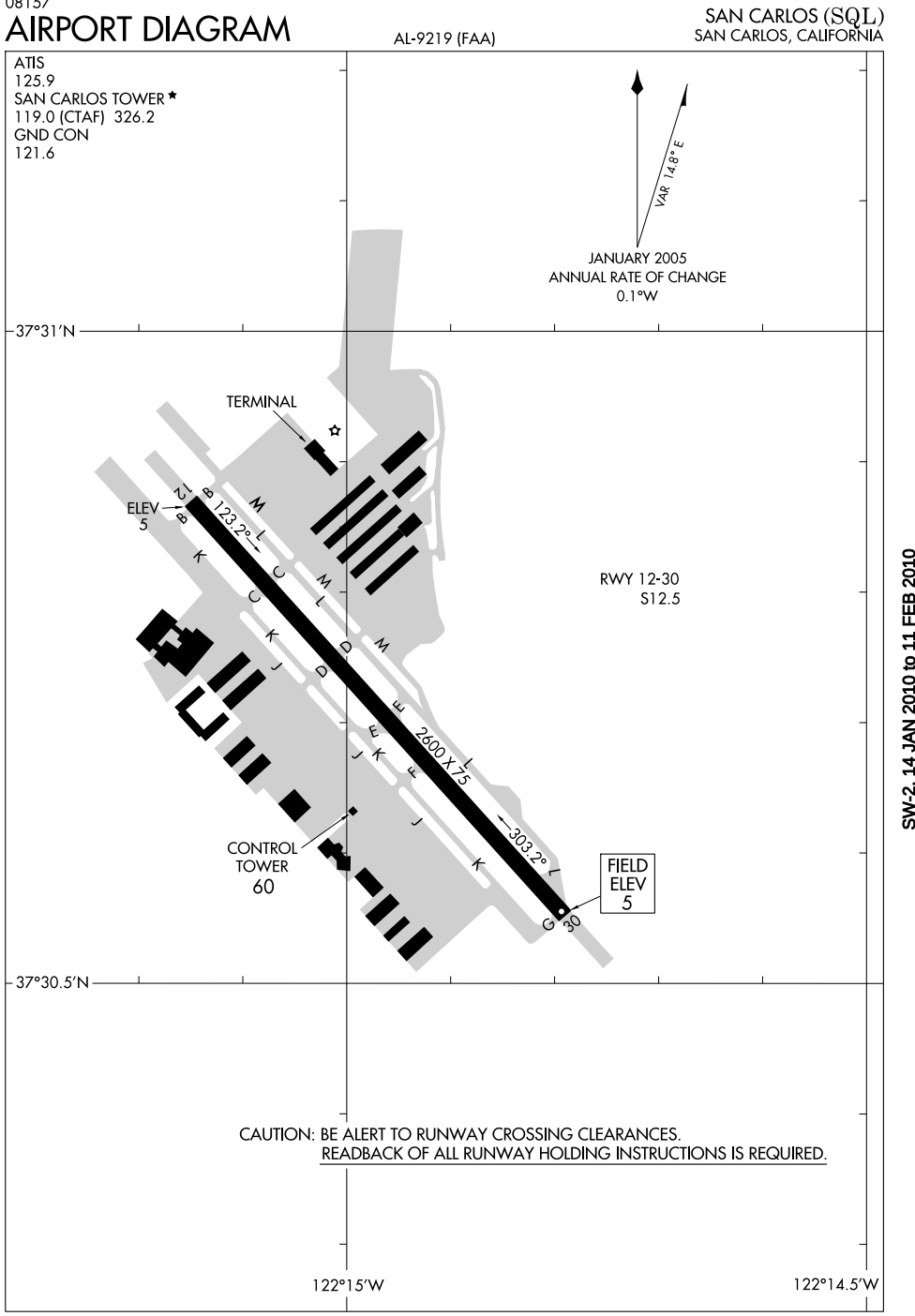
SW-3, 14 JAN 2010 to 11 FEB 2010

AIRPORT DIAGRAM

AL-9219 (FAA)

SAN CARLOS (SQL)
SAN CARLOS, CALIFORNIA

ATIS
125.9
SAN CARLOS TOWER ★
119.0 (CTAF) 326.2
GND CON
121.6

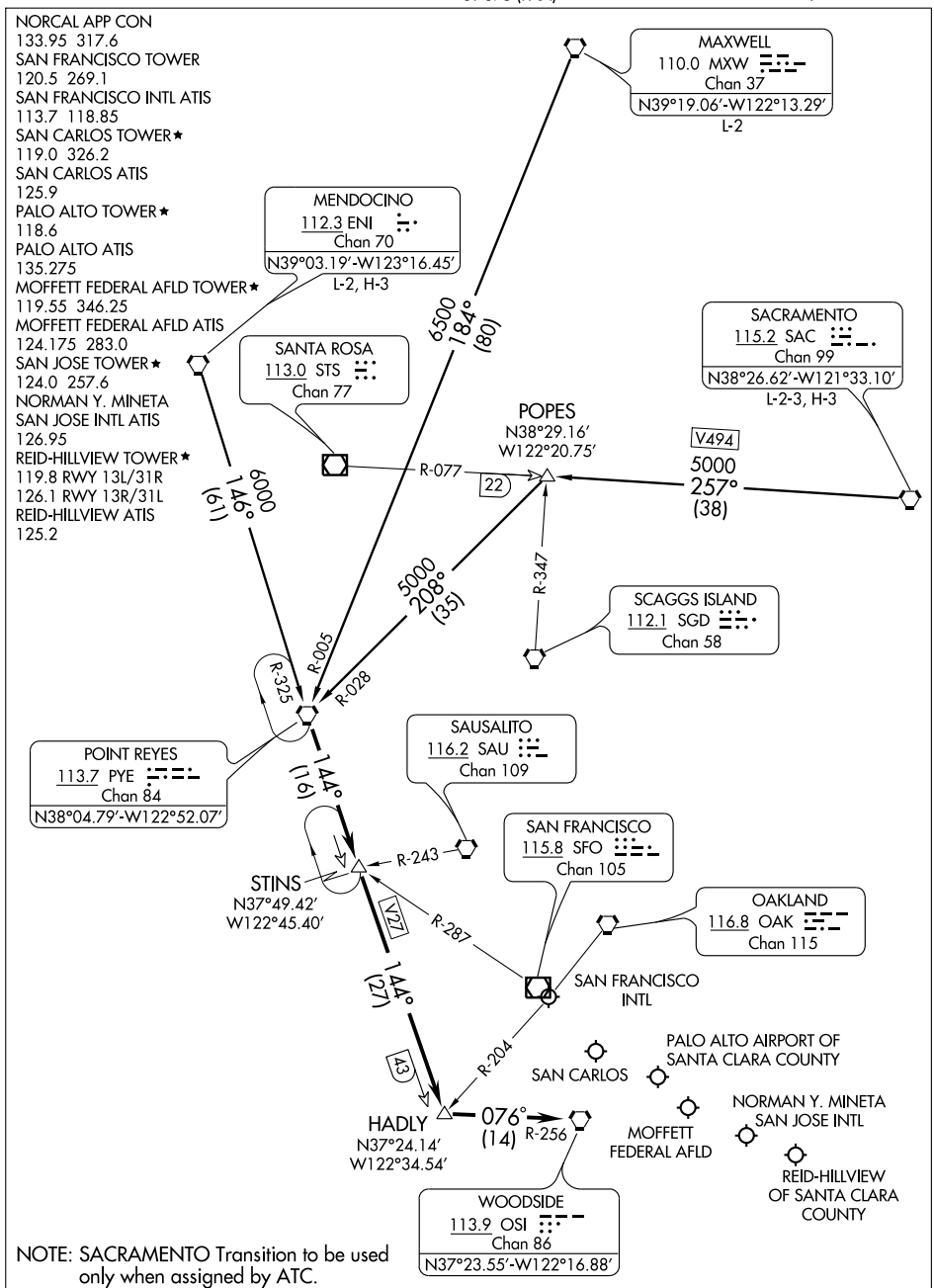


SW-2, 14 JAN 2010 to 11 FEB 2010

POINT REYES ONE ARRIVAL

ST-375 (FAA)

SAN FRANCISCO, CALIFORNIA



NOTE: SACRAMENTO Transition to be used only when assigned by ATC.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SW-2, 14 JAN 2010 to 11 FEB 2010

ARRIVAL DESCRIPTION

MAXWELL TRANSITION (MXW.PYE1): From over MXW VORTAC via MXW R-184 and PYE R-005 to PYE VORTAC. Thence....

MENDOCINO TRANSITION (ENI.PYE1): From over ENI VORTAC via ENI R-146 and PYE R-325 to PYE VORTAC. Thence....

SACRAMENTO TRANSITION (SAC. PYE1): From over SAC VORTAC via SAC R-257 and PYE R-028 to PYE VORTAC. Thence....

....From over PYE VORTAC via PYE R-144 to HADLY INT, then via OSI R-256 to OSI VORTAC. Expect radar vectors to final approach course.

SW-2, 14 JAN 2010 to 11 FEB 2010

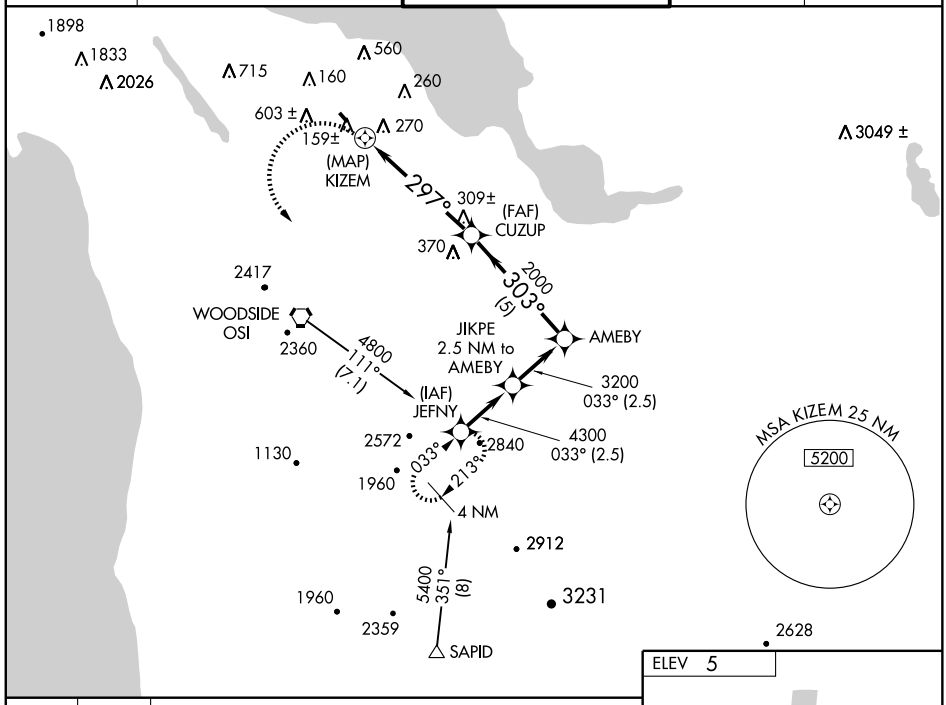
APP CRS	Rwy Idg	2600
297°	TDZE	5
	Apt Elev	5

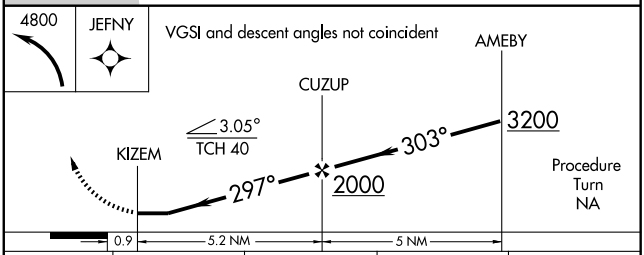
RNAV (GPS) RWY 30
SAN CARLOS (SQL)

Circling NA west of runway 12-30.
When control tower closed, use San Francisco Intl altimeter setting.

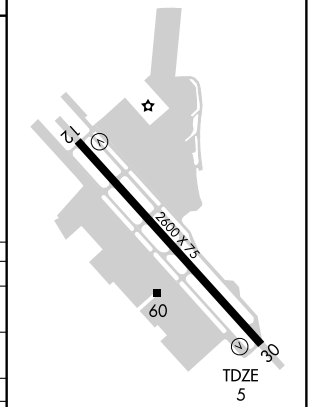
MISSED APPROACH: Climbing left turn to 4800 direct JEFNY WP and hold.

ATIS	NORCAL APP CON	SAN CARLOS TOWER ★	GND CON	UNICOM
125.9	133.95 317.6	119.0 (CTAF) L 326.2	121.6	122.95



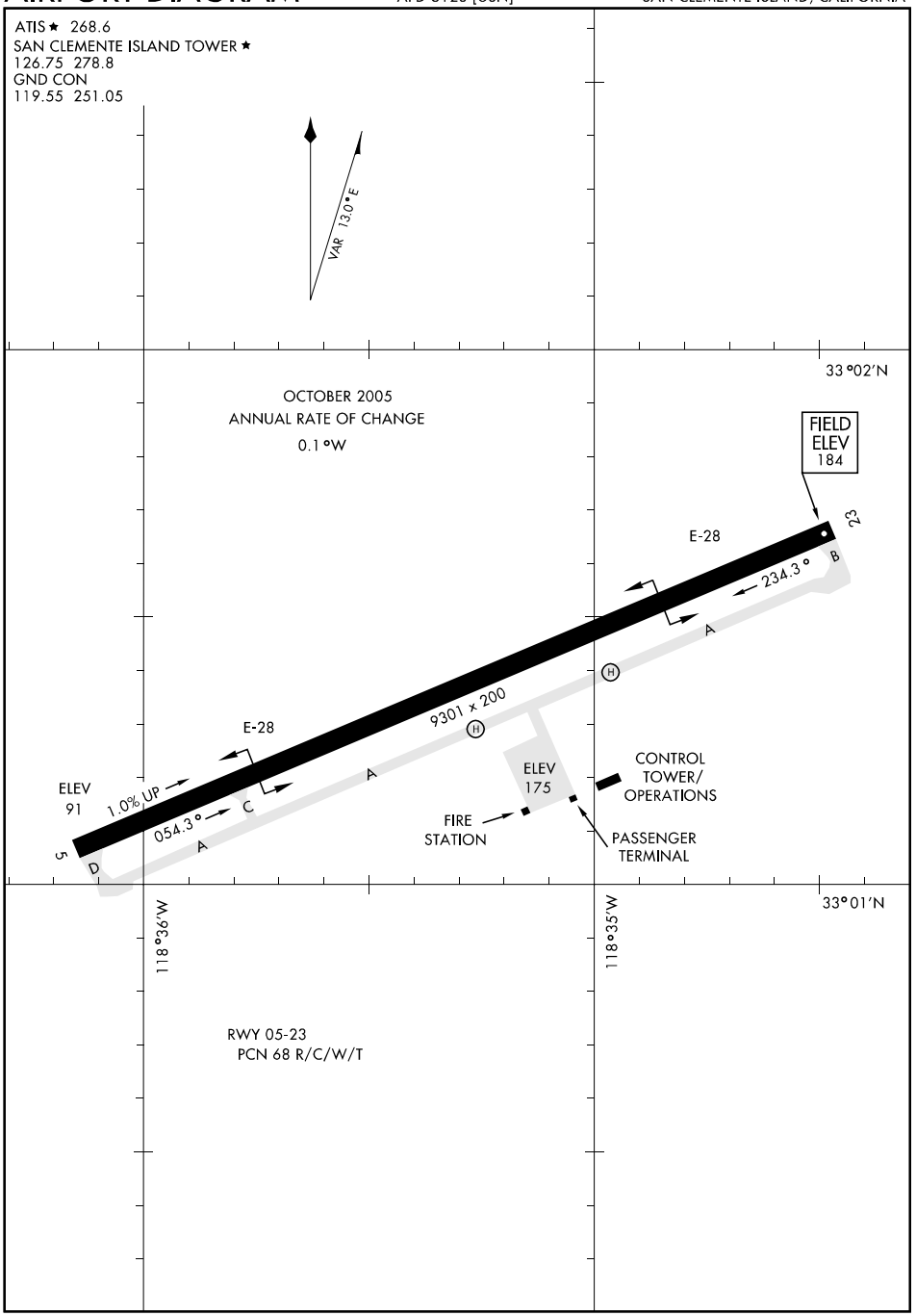


CATEGORY	A	B	C	D
LNAV MDA	640-1	635 (700-1)	NA	
CIRCLING	640-1	635 (700-1)	NA	
SAN FRANCISCO INTL ALTIMETER SETTING MINIMUMS				
LNAV MDA	660-1	655 (700-1)	NA	
CIRCLING	660-1	655 (700-1)	NA	



REIL Rwy 12
REIL Rwy 30 L
MIRL Rwy 12-30 L

SW-2, 14 JAN 2010 to 11 FEB 2010


ATIS ★ 268.6
SAN CLEMENTE ISLAND TOWER ★
126.75 278.8
GND CON
119.55 251.05
VAR 13.0°E
33°02'N
OCTOBER 2005
ANNUAL RATE OF CHANGE
0.1°W
FIELD ELEV 184
23
E-28
B
234.3°
A
9301 x 200
H
E-28
ELEV 91
1.0% UP
054.3°
C
A
5
D
ELEV 175
CONTROL TOWER/ OPERATIONS
FIRE STATION
PASSENGER TERMINAL
33°01'N
118°36'W
118°35'W
RWY 05-23
PCN 68 R/C/W/T

SAN CLEMENTE ISLAND, CALIFORNIA

HI-TACAN RWY 23

SAN CLEMENTE ISLAND NALF
(FREDERICK SHERMAN FLD) (KNUC)

TACAN	APCH CRS	Rwy Idg	9301
NUC Chan 123	233°	TDZE	184
		Arpt Elev	184

JAL-5126 [USN]

▼ *Circling not authorized S of Rwy 5-23.

CAUTION: Procedure in uncontrolled airspace.

MISSED APPROACH: Climb to 1500 via NUC TACAN R-233 then climbing right turn to 4000 via NUC R-030 to HETIT. Then arc NE of the NUC TACAN via the 18 DME arc to PYRAS and hold.

ATIS ★	SAN CLEMENTE ISLAND TOWER ★	GND CON	ASR/PAR
268.6	126.75 278.8	C 119.55 251.05	

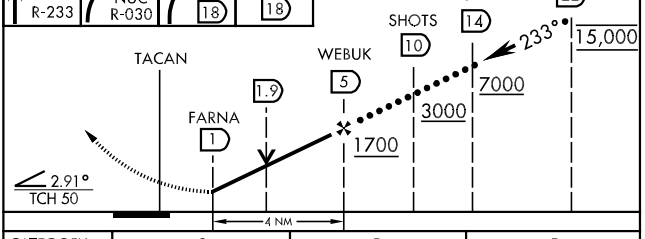
CAUTION: Intmd seg length 5 NM.

HIGH ALTITUDE FACILITIES

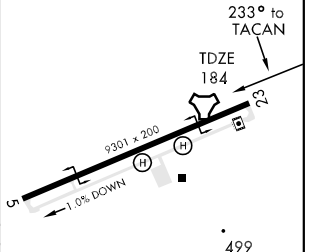
SAN MARCUS
103° (75)
LOS ANGELES
PALMDALE
133° (50)
149° (48)
PARADISE
HETIT NUC 18
R-030
IAF BIREE NUC 22
PYRAS NUC 18
ZUPET NUC 14
SHOTS NUC 10
WEBUK NUC 5
SAN CLEMENTE ISLAND
Chan 123 NUC
20 NM
201° (56)
R-053
211° (75)
HECTOR
233°
053°
248° (38)
NUC 22
281° (53)
OCEANSIDE
Max holding 230 KIAS
641
924
1977
2085
MISSION BAY
258° (87)
IMPERIAL
R-233
MSA NUC 2.5 NM
150°
005°
2000
3200
EMERG SAFE ALT 100 NM 12,100

(c) (b) (a) 123 053 303

1500 NUC R-233	4000 NUC R-030	HETIT Arc 18	PYRAS R-053 18



ELEV 184



CATEGORY	C	D	E
S-23	760-1½ 576 (600-1½)	760-1¾ 576 (600-1¾)	760-2 576 (600-2)
CIRCLING *	760-1½ 576 (600-1½)	760-2 576 (600-2)	
S-PAR 23	434-1	250 (300-1)	GS 3.0°

HIRL Rwy 5-23 C
REIL Rwy 5-23 C

SW-3, 14 JAN 2010 to 11 FEB 2010

RNAV (GPS) RWY 23

(FEDERICK SHERMAN FLD)
SAN CLEMENTE ISLAND NALF (KNUC)

APCH CRS		
233°	Rwy Idg	9301
	TDZE	184
	Arpt Elev	184

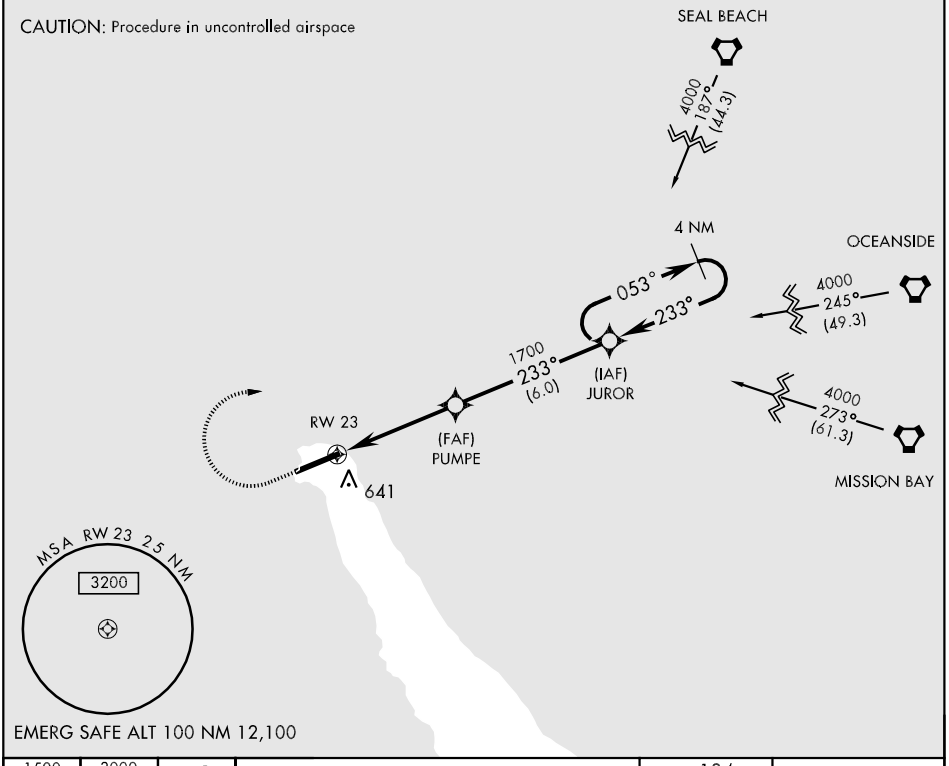
AL-5126 [USN]

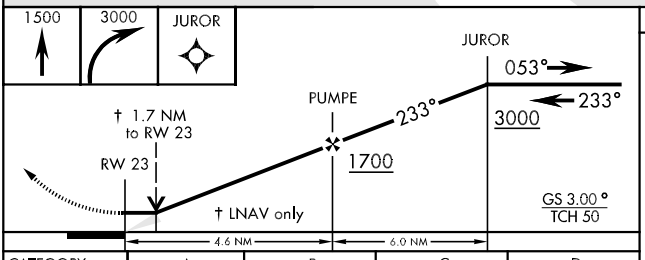
* Circling not authorized S of Rwy 5 - 23.
DME/DME RNP-0.3 NA
Baro VNAV NA below -15°C (4°F) or above 41°C (106°F)

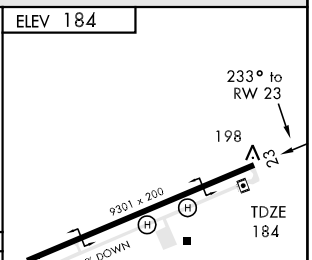
MISSED APPROACH: Climb to 1500, then climbing right turn to 3000 direct JUROR WP and hold.

ATIS ★	SAN CLEMENTE ISLAND TOWER ★	GND CON	ASR/PAR
268.6	126.75 278.8	119.55 251.05	

CAUTION: Procedure in uncontrolled airspace







CATEGORY	A	B	C	D
LNAV/VNAV DA	740-2 556 (600-2)			
LNAV MDA	760-1 576 (600-1)		760-1½ 576 (600-1½)	760-1¾ 576 (600-1¾)
CIRCLING *	760-2 576 (600-2)			
S-PAR 23	434-1 250 (300-1) GS 3.0°			

HIRL Rwy 5-23 (L)
REIL Rwy 5-23 (L)

SW-3, 14 JAN 2010 to 11 FEB 2010

TACAN RWY 23

SAN CLEMENTE ISLAND NALF
(FREDERICK SHERMAN FLD) (KNUC)

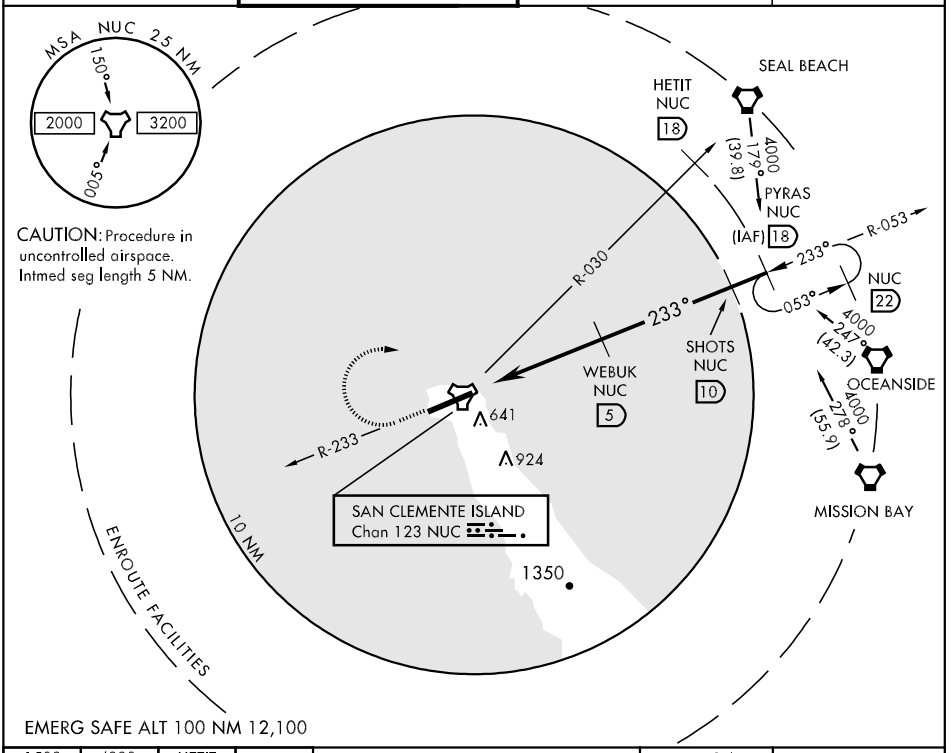
TACAN	APCH CRS	Rwy Idg	9301
NUC Chan 123	233°	TDZE	184
		Arpt Elev	184

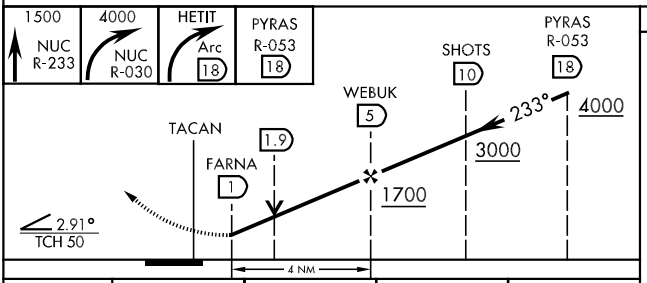
AL-5126 [USN]

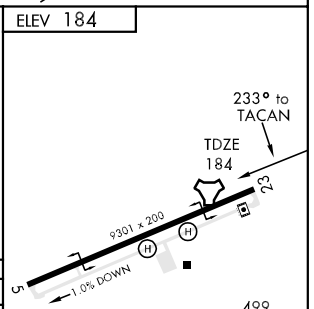
* Circling not authorized S of Rwy 5-23.

MISSED APPROACH: Climb to 1500 via NUC TACAN R-233 then climbing right turn to 4000 via NUC R-030 to HETIT. Then arc NE of NUC TACAN via the 18 DME arc to PYRAS and hold.

ATIS *	SAN CLEMENTE ISLAND TOWER *	GND CON	ASR/PAR
268.6	126.75 278.8	(L) 119.55 251.05	







CATEGORY	A	B	C	D
S-23	760-1 576 (600-1)		760-1½ 576 (600-1½)	760-1¾ 576 (600-1¾)
CIRCLING *	760-1 576 (600-1)		760-1½ 576 (600-1½)	760-2 576 (600-2)
S-PAR 23	434-1 250 (300-1) GS 3.0°			

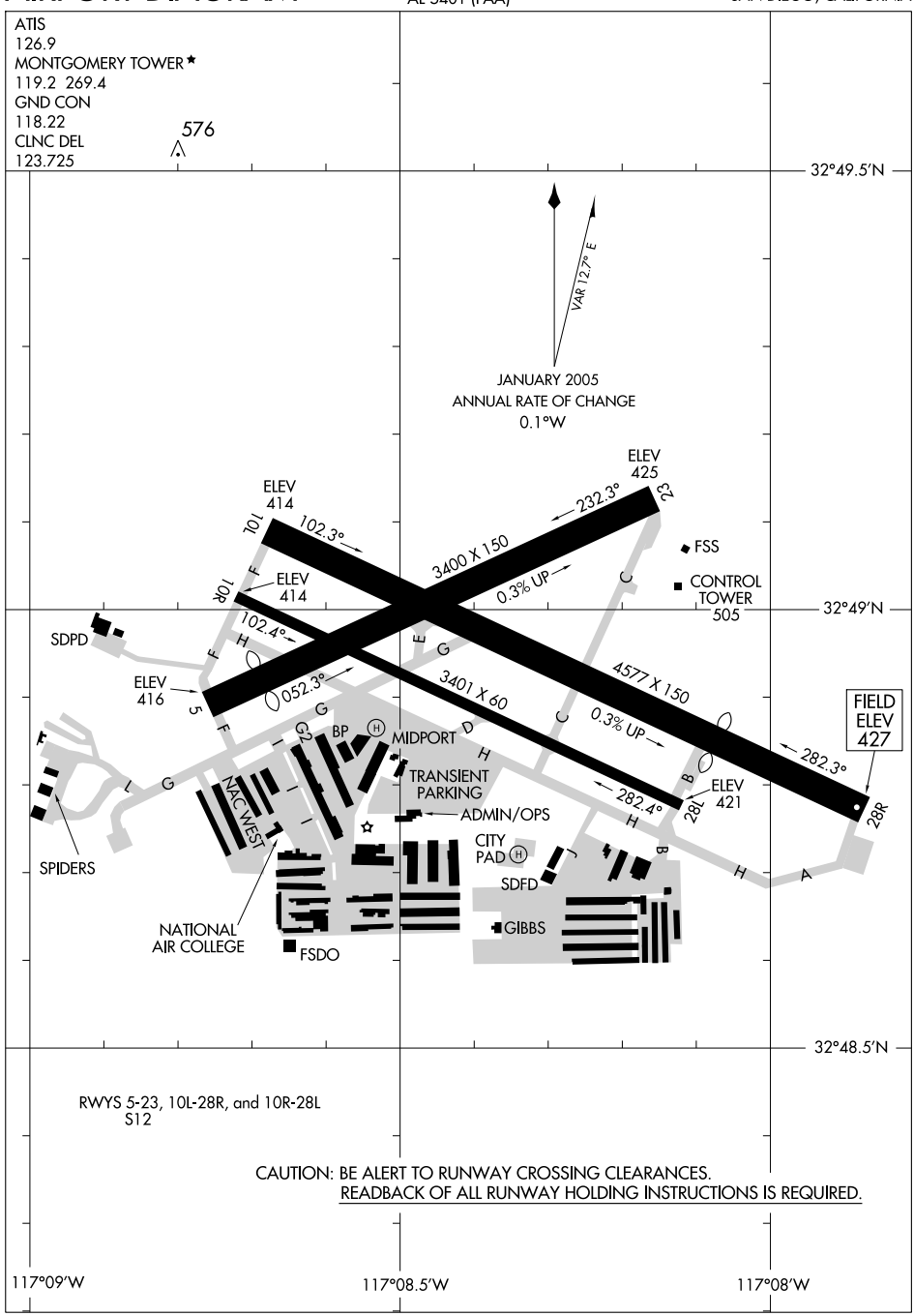
HIRL Rwy 5-23 (L)
REIL Rwy 5-23 (L)

SW-3, 14 JAN 2010 to 11 FEB 2010

AIRPORT DIAGRAM

AL-5401 (FAA)

SAN DIEGO/MONTGOMERY FIELD (MYF)
SAN DIEGO, CALIFORNIA



RWYS 5-23, 10L-28R, and 10R-28L
S12

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

SW-3, 14 JAN 2010 to 11 FEB 2010

SAN DIEGO, CALIFORNIA

AL-5401 (FAA)

LOC/DME I-MYF	APP CRS	Rwy Idg	3401
111.7	281°	TDZE	423
Chan 54		Apt Elev	427

ILS or LOC/DME RWY 28R

SAN DIEGO/ MONTGOMERY FIELD (MYF)

MALSR

MISSED APPROACH: Climb to 1100 then climbing left turn to 3000 via heading 270° and MZB R-326 to CARIF INT.

ATIS	SOCAL APP CON	MONTGOMERY TOWER *	GND CON	CLNC DEL	SAN DIEGO RADIO
126.9	124.35 279.625	119.2 (CTAF) L 269.4	118.22	123.725	122.4

115.3 OCN Chan 100

114.0 JLI Chan 87

R-145

R-246

CARIF

MZB 16.3

MSA MZB 25 NM

4400

130°

220°

2100

5400

340°

2140

2974

3103

1608

2696

3226

R-326

LOCALIZER 111.7 I-MYF Chan 54

10 NM

DME REQUIRED

Miramar MCAS/ Mitscher Field

3675

114.0 JLI Chan 87

R-196

4187

R-187

1049

577±

PALOS I-MYF 3.4

473

546

1612

549±

979

(IAF) BAKEL INT MZB 19.3

OGOTE INT MZB 23.5

BARET MZB 27.7

5800 256° (4.2)

1373

R-076

2500

281° (4.3)

4100 196° (4.21)

6100 256° (4.3)

2801

3836

MISSION BAY 117.8 MZB Chan 125

HUROT I-MYF 7

3600 281° (3.3)

NESTY I-MYF 11.2

3760

2791±

(IF)

101°

3339

2059

MIBBY INT I-MYF 14.5

JLI 29.6

ELEV 427

522

480

465

472

505

TDZE 423

3400 X 150

3401 X 60

4577 X 150

10L

28R

28L

0.3% UP

0.3% UP

472

281° 6.3 NM from FAF

1100	3000	MZB R-326 117.8	CARIF
	270°		

Procedure Turn NA

*LOC only

I-MYF 0.7

I-MYF 1.8

PALOS I-MYF 3.4

HUROT I-MYF 7

NESTY I-MYF 11.2

MIBBY INT I-MYF 14.5

2500

281° 3600

4100

2500

1320*

GS 3.00°

TCH 41

1.1 NM | 1.6 NM | 3.6 NM | 4.3 NM | 3.3 NM

CATEGORY	A	B	C	D
S-ILS 28R	623-½ 200 (200-½)		NA	
S-LOC 28R	800-½ 377 (400-½)		NA	
CIRCLING	880-1 453 (500-1)		NA	

REIL Rwy 28L

MIRL Rwy 10L-28R

SW-3, 14 JAN 2010 to 11 FEB 2010

SAN DIEGO, CALIFORNIA AL-5401 (FAA)

WAAS	APP CRS	Rwy Idg	3401
CH 45710	281°	TDZE	423
W28A		Apt Elev	427

RNAV (GPS) RWY 28R

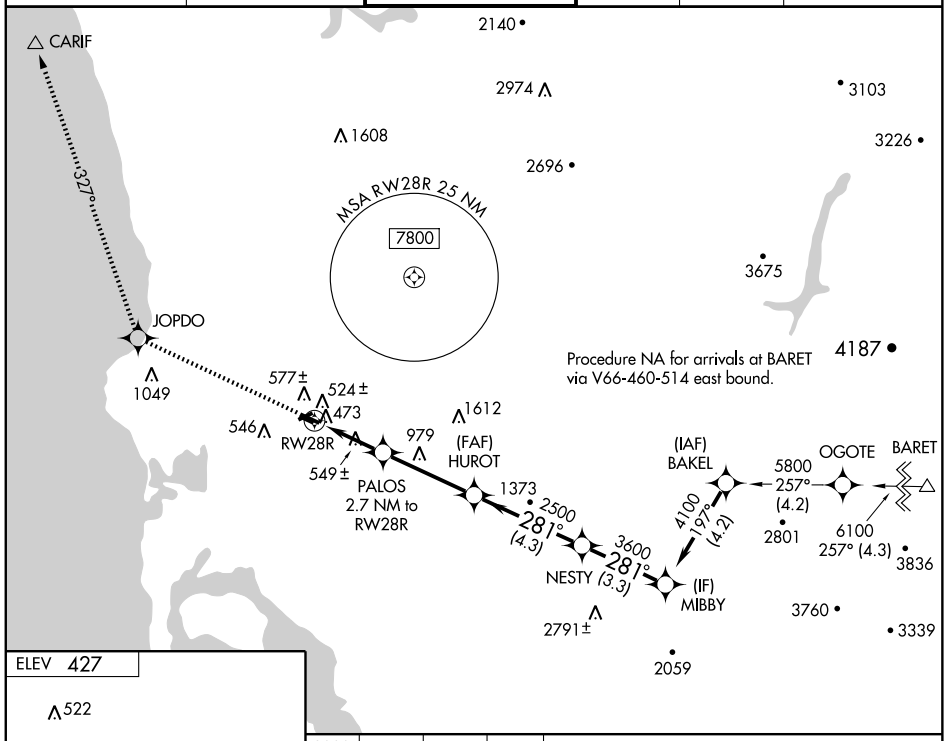
SAN DIEGO/ MONTGOMERY FIELD (MYF)

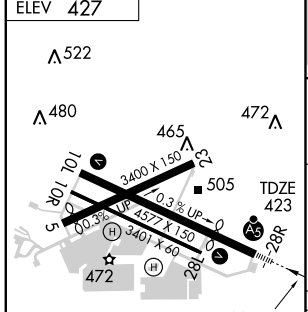
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.

MALSR

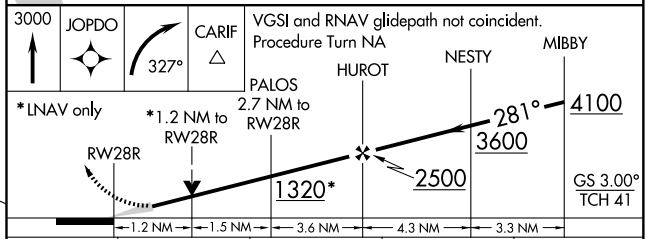
MISSED APPROACH: Climb to 3000 direct JOPDO and right turn via 327° track to CARIF.

ATIS	SOCAL APP CON	MONTGOMERY TOWER*	GND CON	CLNC DEL	SAN DIEGO RADIO
126.9	124.35 279.625	119.2 (CTAF) L 269.4	118.22	123.725	122.4



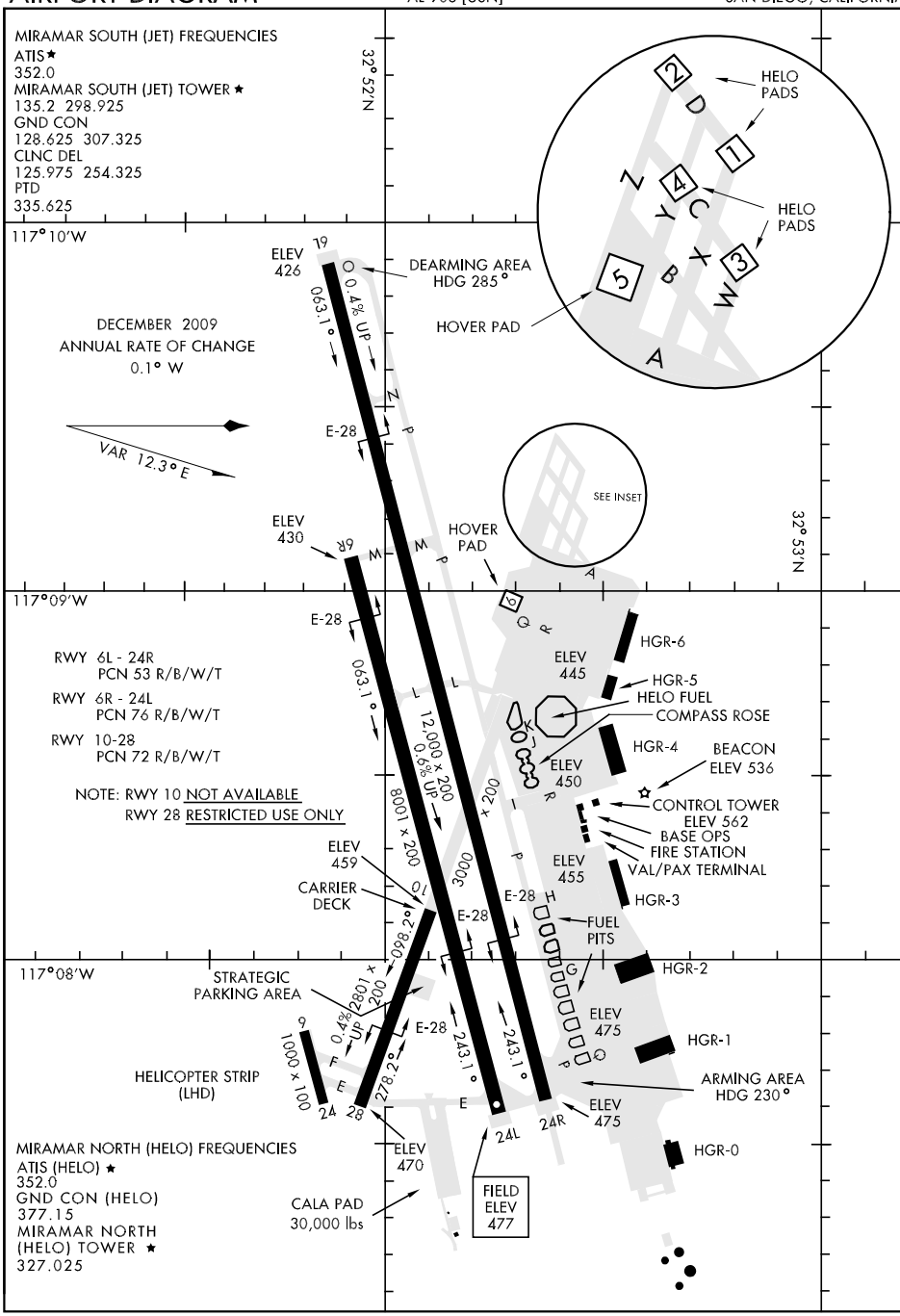


REIL Rwy 28L
MIRL Rwy 10L-28R



CATEGORY	A	B	C	D
LPV DA	623-½ 200 (200-½)		NA	
LNAV/VNAV DA	750-¾ 327 (400-¾)		NA	
LNAV MDA	840-½ 417 (500-½)		NA	
CIRCLING	880-1 453 (500-1)		NA	

SW-3, 14 JAN 2010 to 11 FEB 2010


MIRAMAR SOUTH (JET) FREQUENCIES
ATIS ★
352.0
MIRAMAR SOUTH (JET) TOWER ★
135.2 298.925
GND CON
128.625 307.325
CLNC DEL
125.975 254.325
PTD
335.625
32° 52'N
117°10'W
ELEV 426
DEARMING AREA HDG 285°
HOVER PAD
HELO PADS
HELO PADS
DECEMBER 2009
ANNUAL RATE OF CHANGE
0.1° W
VAR 12.3° E
063.1°
0.4% UP
E-28
SEE INSET
ELEV 430
HOVER PAD
32° 53'N
117°09'W
RWY 6L - 24R
PCN 53 R/B/W/T
RWY 6R - 24L
PCN 76 R/B/W/T
RWY 10-28
PCN 72 R/B/W/T
NOTE: RWY 10 NOT AVAILABLE
RWY 28 RESTRICTED USE ONLY
12,000 x 200
0.6% UP
8001 x 200
3000 x 200
ELEV 445
HGR-6
HGR-5
HELO FUEL
COMPASS ROSE
HGR-4
BEACON
ELEV 536
ELEV 450
CONTROL TOWER
ELEV 562
BASE OPS
FIRE STATION
VAL/PAX TERMINAL
ELEV 455
HGR-3
ELEV 459
CARRIER DECK
098.2°
E-28
FUEL PITS
117°08'W
STRATEGIC PARKING AREA
2801 x 200
0.4% UP
HGR-2
ELEV 475
HGR-1
1000 x 100
HELICOPTER STRIP (LHD)
278.2°
243.1°
ARMING AREA HDG 230°
ELEV 475
HGR-0
MIRAMAR NORTH (HELO) FREQUENCIES
ATIS (HELO) ★
352.0
GND CON (HELO)
377.15
MIRAMAR NORTH (HELO) TOWER ★
327.025
ELEV 470
CALA PAD
30,000 lbs
FIELD ELEV 477

HI-TACAN RWY 24R

TACAN	NKX	APCH CRS	Rwy Idg	24R	12,000	24L	8001
Chan	33	244°	TDZE	24R	475	24L	477
			Arpt Elev		477		

JAL-903 [USN]
MIRAMAR MCAS (MITSCHER FLD) (KNKX)

T *When ALS inop, increase CAT C vis to 1¾ miles, CAT D to 2 miles, CAT E to 2¼ miles.
** Circling not authorized to Rwy 10-28. CAT E circling not authorized S of Rwy 6R-24L.

ALSF-1

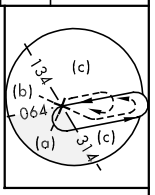
† MISSED APPROACH: Climb to 1500, then climbing right turn to 7000 via NKX TACAN R-360 to HUKVO. Arc NE of NKX via 16 mile arc to WARNT and hold. Cross R-320 at 3000 mandatory, cross HUKVO at 6000 mandatory.

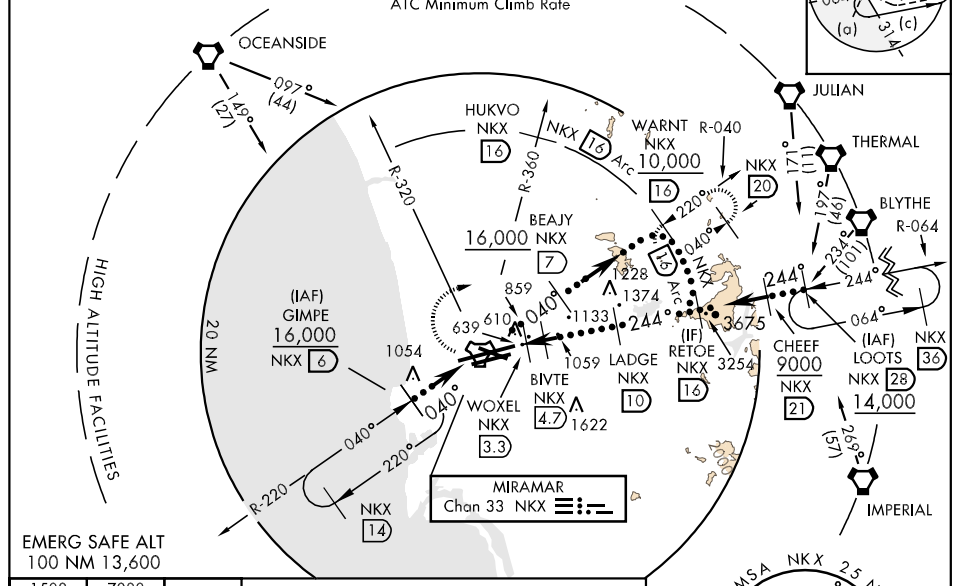
ATIS ★	SOCAL APP CON	MIRAMAR TOWER ★	GND CON	CLNC DEL	ASR/PAR	LA CENTER
352.0	132.2 269.1	135.2 298.925	128.625 307.325	125.975 254.325		291.7

† CAUTION: Missed Approach Minimum Climb Rate to 6000

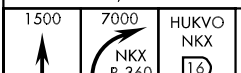
Knots	60	120	180	240	300	360
V/V(fpm)	275	550	825	1100	1375	1650

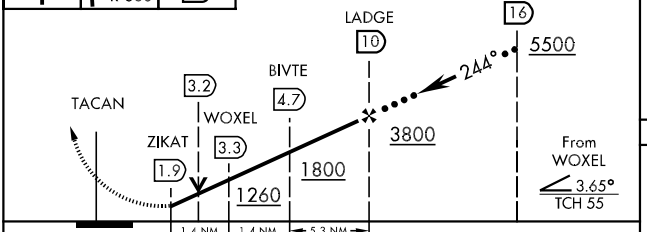
ATC Minimum Climb Rate

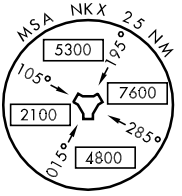




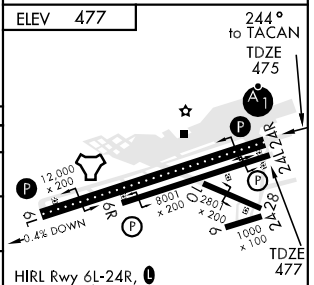
EMERG SAFE ALT
100 NM 13,600







CATEGORY	C	D	E
S-24R *	1100-1¼ 625 (700-1¼)	1100-1½ 625 (700-1½)	1100-1¾ 625 (700-1¾)
SIDE-STEP 24L	1100-1¾ 623 (700-1¾)	1100-2 623 (700-2)	1100-2¼ 623 (700-2¼)
CIRCLING **	1100-1¾ 623 (700-1¾)	1160-2¼ 683 (700-2¼)	1360-3 883 (900-3)



ILS OR LOC/DME RWY 24R

LOC I-NKX	APCH CRS	Rwy ldg / TDZE / Arpt Elev	AL-903 [USN]	MIRAMAR MCAS (MITSCHER FLD) (KNKX)
111.15	240°	12,000 / 475 / 477		

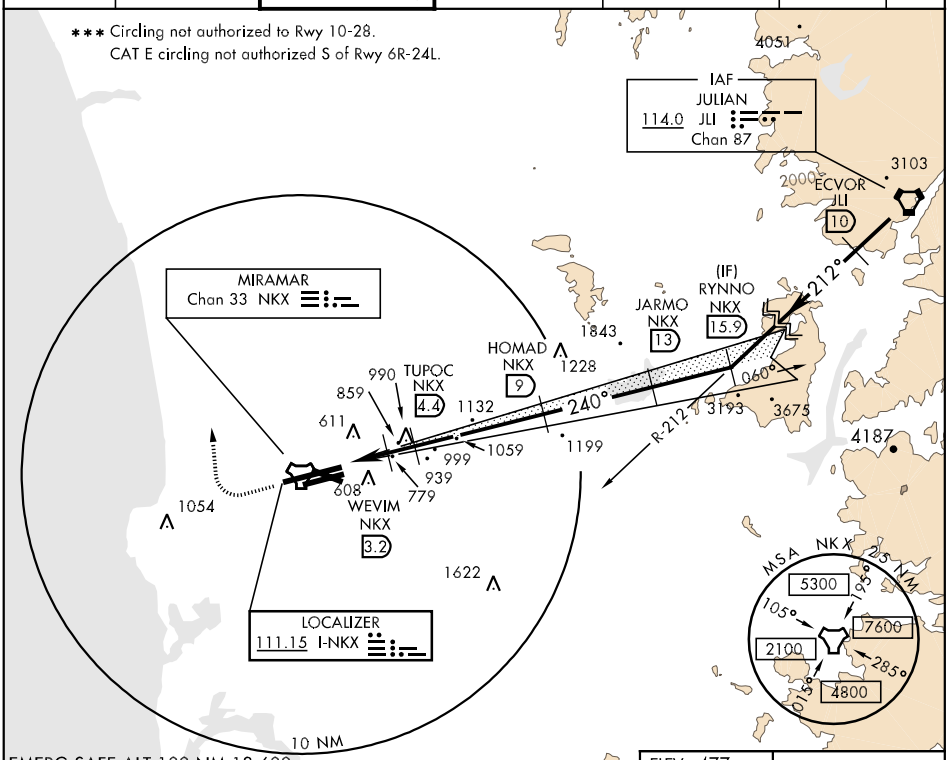
▼ * When ALS inop, increase CAT ABCDE vis to ¾ mile.
** When ALS inop, increase CAT AB vis to 1 mile, CAT C to 1 ½ miles, CAT D to 1¾ miles, CAT E to 2 miles.

ALSF-1

MISSED APPROACH: Climb to 1500, then climbing right turn to 3000 via heading 340°. Expect radar vectors.

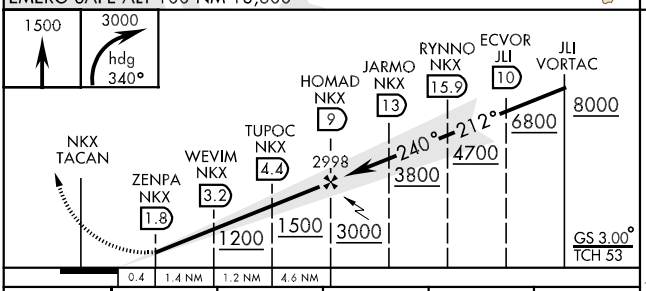
ATIS ★	SOCAL APP CON	MIRAMAR TOWER ★	GND CON	CLNC DEL	LA CENTER	ASR/PAR
352.0	132.2 269.1	135.2 298.925 C	128.625 307.325	125.975 254.325	291.7	

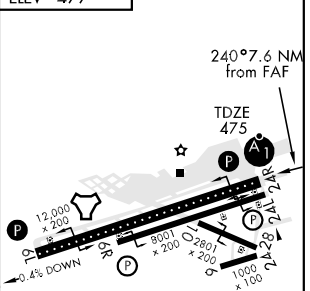
*** Circling not authorized to Rwy 10-28.
CAT E circling not authorized S of Rwy 6R-24L.



EMERG SAFE ALT 100 NM 13,600

ELEV 477





CATEGORY	A	B	C	D	E
S-ILS 24R *	675 - ½		200	(200-½)	
S-LOC/DME 24R **	1040- ½ 565 (600-½)		1040-1 565 (600-1)	1040-1¼ 565 (600-1¼)	1040-1½ 565 (600-1½)
CIRCLING ***	1040-1 563 (600-1)		1040-1½ 563 (600-1½)	1160-2¼ 683 (700-2¼)	1360-3 883 (900-3)

HIRL Rwy 6L-24R, C
6R-24L and 10-28

SW-3, 14 JAN 2010 to 11 FEB 2010

LAKEE-ONE DEPARTURE (LAKEE1 • LAKEE)

SAN DIEGO, CALIFORNIA

ATIS ★ 352.0
CLNC DEL
125.975 254.325
GND CON
128.625 307.325
MIRAMAR TOWER ★
135.2 298.925
SOCAL DEP CON
132.2 269.1 E

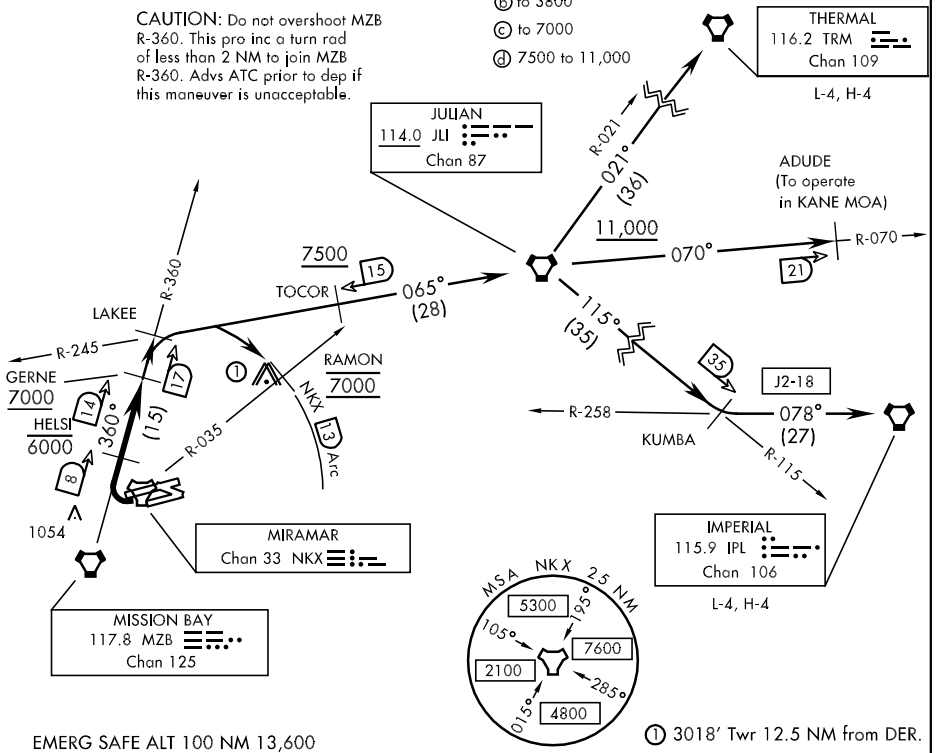
SHL-903 [USN]

Rwy	Knots	60	120	180	240	300	360
* 24L/R ⓐ	V/V(fpm)	260	520	780	1040	1300	1560
** 24L/R ⓑ	V/V(fpm)	280	560	840	1120	1400	1680
† 24L/R ⓒ	V/V(fpm)	735	1470	2205	2940	3675	4410
† 24L/R ⓓ	V/V(fpm)	235	470	705	940	1175	1410

* Military Minimum ** Civil Minimum † ATC Minimum

ⓐ to 3600
ⓑ to 3800
ⓒ to 7000
ⓓ 7500 to 11,000

CAUTION: Do not overshoot MZB R-360. This pro inc a turn rad of less than 2 NM to join MZB R-360. Advs ATC prior to dep if this maneuver is unacceptable.



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 24L/R: Turn right to intercept and proceed via MZB VORTAC R-360 to LAKEE INT. Cross HELSI at or below 6000. Cross GERNE at or above 7000. Thence...

ADUDE TRANSITION (LAKEE1 • ADUDE): Via JLI VORTAC R-245 to JLI. Then via JLI R-070 to ADUDE. Cross TOCOR at or above 7500. Cross JLI VORTAC at or above 11,000. (To operate in KANE MOA.)

IMPERIAL TRANSITION (LAKEE1 • IPL): Via JLI VORTAC R-245 to JLI. Then via JLI R-115 to KUMBA INT, then via IPL VORTAC R-258 to IPL. Cross TOCOR at or above 7500. Cross JLI VORTAC at or above 11,000.

(Continued on next page)

SW-3, 14 JAN 2010 to 11 FEB 2010

SHL-903 [USN]

DEPARTURE ROUTE DESCRIPTION

(Continued)

JULIAN TRANSITION (LAKEE1 · JLI): Via JLI VORTAC R-245 to JLI. Cross TOCOR at or above 7500. Cross JLI VORTAC at or above 11,000.

RAMON TRANSITION (LAKEE1 · RAMON): Via JLI VORTAC R-245 to NKX TACAN 13 DME. Then arc NE of NKX via the 13 DME arc to RAMON. Cross RAMON at 7000 mandatory.

THERMAL TRANSITION (LAKEE1 · TRM): Via JLI VORTAC R-245 to JLI. Then via JLI R-021 to TRM VORTAC. Cross TOCOR at or above 7500. Cross JLI VORTAC at or above 11,000.

SW-3, 14 JAN 2010 to 11 FEB 2010

REDIN-ONE DEPARTURE (REDIN1 • REDIN)

SAN DIEGO, CALIFORNIA

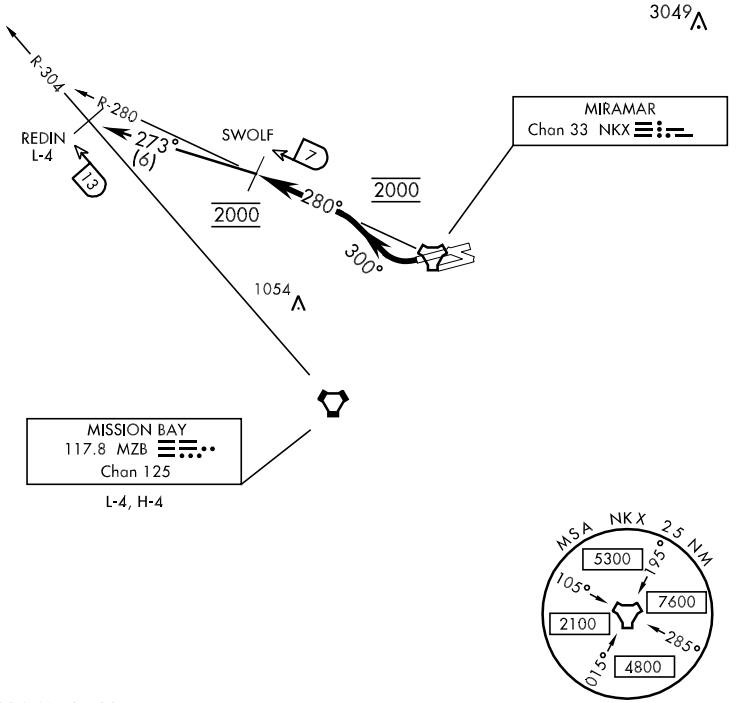
ATIS ★ 352.0
CLNC DEL
125.975 254.325
GND CON
128.625 307.325
MIRAMAR TOWER ★
135.2 298.925
SOCAL DEP CON
119.6 363.1 W

SL-903 [USN]

Rwy	Knots	60	120	180	240
24L/R	V/V(fpm)	780	1560	2340	3120

ATC Climb Rate to 2000

RESTRICTED TO CAT A & B ACFT ONLY



EMERG SAFE ALT 100 NM 13,600

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 24L/R: Climbing right turn to 2000 via heading 300° to intercept and proceed via NKX TACAN R-280 to SWOLF. Complete turn within NKX 2 DME. Join NKX R-280 at 2000 mandatory. Cross SWOLF at 2000 mandatory.

REDIN TRANSITION (REDIN1 • REDIN): Turn left heading 273° to intercept MZB VORTAC R-304 at REDIN.

REDIN-ONE DEPARTURE (REDIN1 • REDIN)
SAN DIEGO, CALIFORNIA

RNAV (GPS) RWY 24L

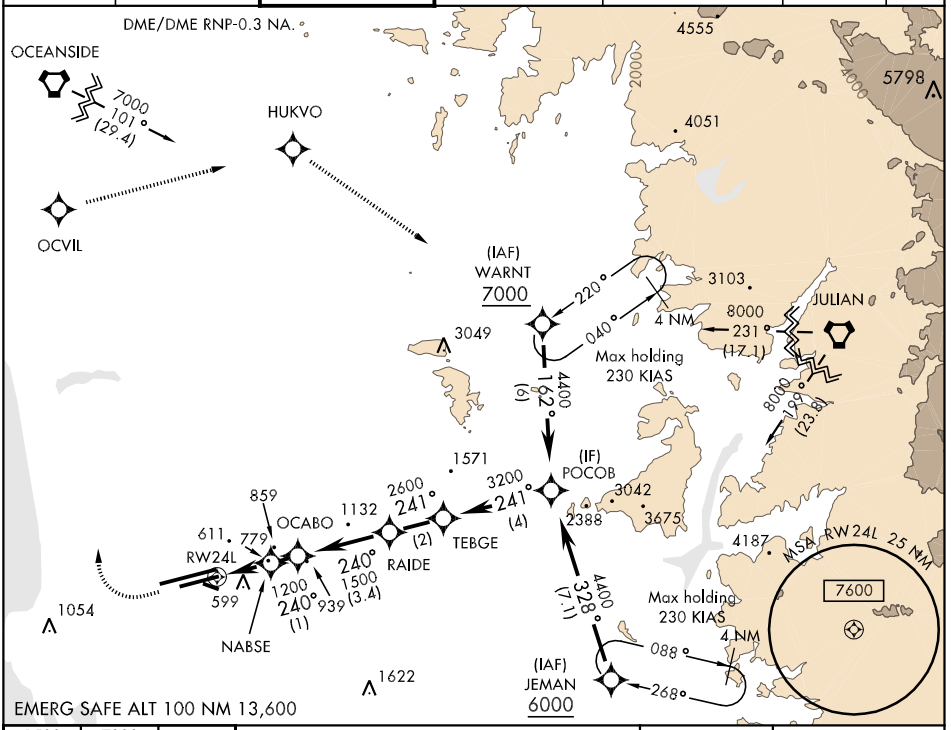
WAAS CH 54028 W24A	APCH CRS 240°	Rwy ldg 8001 TDZE 477 Arpt Elev 477

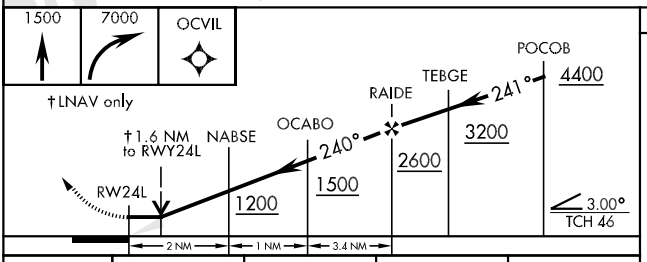
AL-903 [USN] MIRAMAR MCAS (MITSCHER FLD) (KNKX)

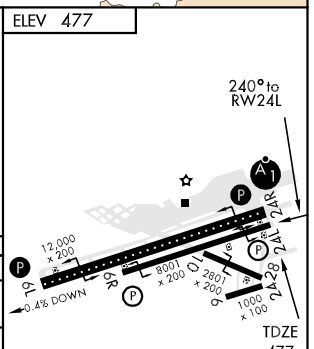
▼ * Circling not authorized to Rwy 10-28. For uncompensated BARO-VNAV systems LNAV/VNAV NA below -15° C (4° F) or above 35° C (95° F)

MISSED APPROACH: Climb to 1500, then climbing right turn to 7000 direct OCVIL, and right turn via 060° track to HUKVO and right turn via 110° track to WARNT and hold.

ATIS ★	SOCAL APP CON	MIRAMAR TOWER ★	GND CON	CLNC DEL	LA CENTER	ASR/ PAR
352.0	132.2 269.1	135.2 298.925 C	128.625 307.325	125.975 254.325	291.7	







CATEGORY	A	B	C	D
LPV DA	677-1 200 (200-1)			
LNAV/VNAV DA	900-1½ 423 (500-1½)			
LNAV MDA	1040-1 563 (600-1)		1040-1½ 563 (600-1½)	1040-1¾ 563 (600-1¾)
CIRCLING *	1040-1½ 563 (600-1½)			1160-2¼ 683 (700-2¼)

HIRL Rwy 6L-24R, C 6R-24L and 10-28

RNAV (GPS) RWY 24R

WAAS CH 61450 W24B	APCH CRS 240°	Rwy ldg 12,000 TDZE 475 Arpt Elev 477

AL-903 [USN] MIRAMAR MCAS (MITSCHER FLD) (KNKX)

▼ * When ALS inop, increase CAT ABCD vis to 1 mile.
** When ALS inop, increase CAT ABCD vis to 1½ miles.

ALSF-1

MISSED APPROACH: Climb to 1500, then climbing right turn to 7000 direct OCVIL, and right turn via 060° track to HUKVO, and right turn via 110° track to WARNT and hold.

ATIS ★	SOCAL APP CON	MIRAMAR TOWER ★	GND CON	CLNC DEL	LA CENTER	ASR/PAR
352.0	132.2 269.1	135.2 298.925 L	128.625 307.325	125.975 254.325	291.7	

*** When ALS inop, increase CAT AB vis to 1 mile, CAT C vis to 1½ miles and Cat D vis to 1¾ miles.
**** Circling not authorized to Rwy 10-28

OCEANSIDE
7000
101°
(29.4)
OCVIL
HUKVO
JULIAN
8000
231°
(17.1)
8000
199°
(23.8)
Max hldg
230 KIAS
4600
For uncompensated BARO-VNAV systems LNAV/VNAV NA below -15° C (4° F) or above 35° C (95° F).
DME/DME RNP-0.3 NA.
(IAF)
WARNT
7000
3049
220°
040°
4 NM
162°
(5.9)
4400
1571
(IF)
SIMBE
MSA RW24R 25 NM
7600
3042
2388
3675
2600
241°
(2)
3200
241°
(4)
859
ETIYU
611
1132
FOSEB
1500
240°
(3.4)
CINUS
UYOCA
RW24R
1200
240°
(1)
779
939
1054
328°
(7.2)
4400
Max hldg
230 KIAS 4 NM
088°
268°
(IAF)
JEMAN
6000
EMERG SAFE ALT 100 NM 13,600

SW-3, 14 JAN 2010 to 11 FEB 2010

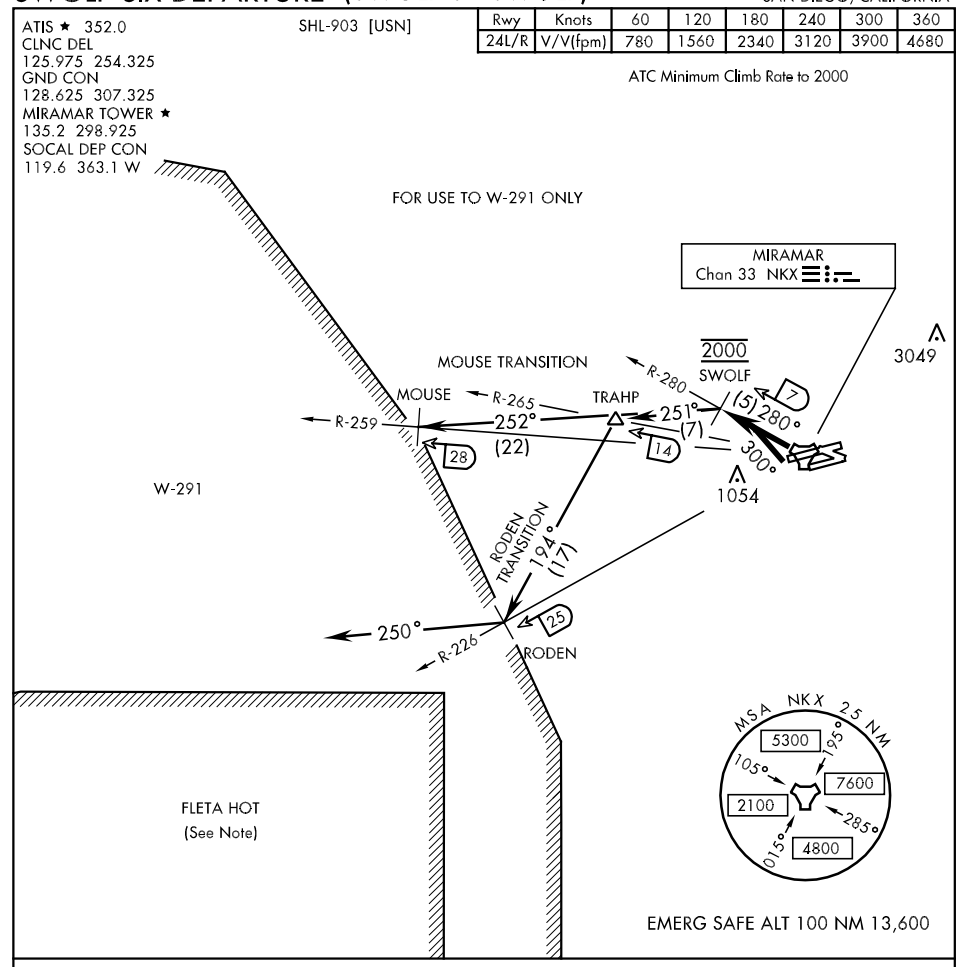
1500 | 7000 | OCVIL

† LNAV only
† 1.6 NM to RW24R
ETIYU
FOSEB
CINUS
UYOCA
SIMBE
241°
4400
3200
2600
240°
1500
1200
RW24R
3.00°
TCH 53
2.0 NM
1.0 NM
3.4 NM

ELEV 477
TDZE 475
539
12,000 x 200
8001 x 200
2801 x 200
1000 x 100
0.4% DOWN
240° to RW24R

CATEGORY	A	B	C	D
LPV DA *	675-½	200 (200-½)		
LNAV/VNAV DA **	900-1	425 (500-1)		
*** LNAV MDA	1040-½ 565 (600-½)		1040-1 565 (600-1)	1040-1¼ 565 (600-1¼)
**** CIRCLING	1040-1½ 563 (600-1½)			1160-2¼ 683 (700-2¼)

HIRL Rwy 6L-24R, L
6R-24L and 10-28



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 24L/R: Climbing right turn to 2000 via heading 300° to intercept and proceed via NKX TACAN R-280 to SWOLF. Complete turn within NKX 2 DME. Join NKX R-280 at 2000 mand. Cross SWOLF at 2000 mand. Thence...

MOUSE TRANSITION (SWOLF 6 • MOUSE): Turn left heading 252° to intercept NKX R-259 at MOUSE. Maintain 2000 for entry into W-291.

(Continued on next page)

SW-3, 14 JAN 2010 to 11 FEB 2010

SHL-903 [USN]

DEPARTURE ROUTE DESCRIPTION

(Continued)

RODEN TRANSITION (SWOLF 6 • RODEN): Turn left heading 251° to intercept NKX R-265 at TRAHP. Then turn left heading 194 to intercept NKX R-226 at RODEN. Maintain 2000 for entry into W-291 via heading 250°.

NOTE:

(1) FLETA HOT-ACTIVE FIRING AREA (DANGER, REMAIN CLEAR).

(2) ALL AIRCRAFT SHOULD MAINTAIN LAST ASSIGNED HEADING/RADIAL AND ALTITUDE TO AVOID INBOUND MILITARY OR CIVIL AIRCRAFT AT HIGHER ALTITUDES!

SW-3, 14 JAN 2010 to 11 FEB 2010

TACAN RWY 24R

TACAN NKX Chan 33	APCH CRS 244°	Rwy ldg 24R 12,000 24L 8001 TDZE 24R 475 24L 477 Arpt Elev 477	AL-903 [USN]

MIRAMAR MCAS (MITSCHER FLD) (KNKX)

▼ * When ALS inop, increase CAT AB vis to 1 mile, CAT C to 1¾ miles, CAT D to 2 miles.
** Circling not authorized to Rwy 10-28.

ALSF-1

† MISSED APPROACH: Climb to 1500, then climbing right turn to 7000 via NKX TACAN R-360 to HUKVO. Arc NE of NKX via the 16 mile arc to WARNT and hold. Cross NKX R-320 at 3000 manatory, cross HUKVO at 6000 manatory.

ATIS ★	SOCAL APP CON	MIRAMAR TOWER ★	GND CON	CLNC DEL	LA CENTER	ASR/ PAR
352.0	132.2 269.1	135.2 298.925 C	128.625 307.325	125.975 254.325	291.7	

† CAUTION: Missed Approach Minimum Climb Rate to 6000

Knots	60	120	180	240	300	360
V/V(fpm)	275	550	825	1100	†375	1650

ATC Minimum Climb Rate

OCEANSIDE

MSA NKX 25 NM
5300 195° 7600 105° 2100 285° 4800 015°

HUKVO NKX 16

7000 101° (29.4) NKX 16 Arc

R-360

8000 103° (38.4)

(IAF) WARNT NKX 16 7000

R-040 220° 040°

NKX 20 3103 8000 231° (17.1) JULIAN

3049

NKX 16 Arc

(IAF) CHEEF

(IF) RETOE NKX 16

NKX 21 8000

8000 199° (14.4) R-064 244° 064°

10 NM

R-320

1228 1374 839 999 1133 611 859 3675 3254 4187

244° LADGE NKX 10

NKX 25

639 WOXEL NKX 3.3 BIVTE NKX 4.7

NKX 16 Arc

8000 199° (23.8)

NKX 20

1054

MIRAMAR Chan 33 NKX

088° 268° R-088

(IAF) JEMAN NKX 16 6000

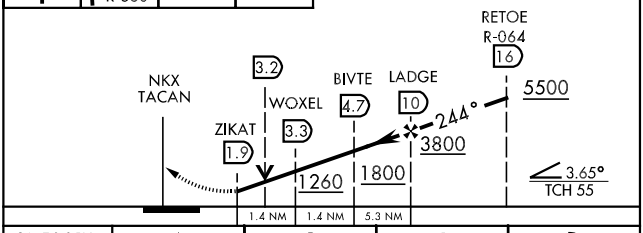
1622

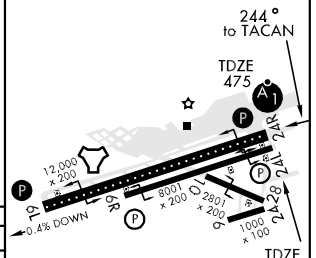
EMERG SAFE ALT 100 NM 13,600

4555 4031 4000 2000

1500 | 7000 NKX R-360 | HUKVO NKX 16 | Arc NE 16

ELEV 477





CATEGORY	A	B	C	D
S-24R *	1100- ½ 625 (700-½)		1100-1¼ 625 (700-1¼)	1100-1½ 625 (700-1½)
SIDE-STEP 24L	1100-1 623 (700-1)		1100-1¾ 623 (700-1¾)	1100-2 623 (700-2)
CIRCLING **	1100-1 623 (700-1)		1100-1¾ 623 (700-1¾)	1160-2¼ 683 (700-2¼)

HIRL Rwy 6L-24R, C 6R-24L and 10-28

SW-3, 14 JAN 2010 to 11 FEB 2010

TINNY-ONE DEPARTURE (TINNY1 • TINNY)

SAN DIEGO, CALIFORNIA

ATIS ★ 352.0
CLNC DEL
125.975 254.325
GND CON
128.625 307.325
MIRAMAR TOWER ★
135.2 298.925
SOCAL DEP CON
119.6 363.1 W

SHL-903 [USN]

Rwy	Knots	60	120	180	240	300	360
24L/R	V/V(fpm)	780	1560	2340	3120	3900	4680

ATC Minimum Climb Rate to 2000

SHAFTER
115.4 EHF
Chan 101
L-3,L-7,H-4

SAN MARCUS
114.9 RZS
Chan 96
L-3,L4,L7,H-4

289° (43)

SHAFTER TRANSITION
324° (121)

SAN MARCUS TRANSITION
291° (52)

VTU R-111

70

TINNY

VENTURA
108.2 VTU
Chan 19

MIRAMAR
Chan 33 NKX

R-280

R-144

300° (51)

SWOLF
2000

7

253°

300°

R-300

MISSION BAY
117.8 MZB
Chan 125

MSA NKX 25 NM
095°
5300
105°
7600
2100
285°
015°
4800

EMERG SAFE ALT 100 NM 13,600

NOTE: Chart not to scale

TINNY-ONE DEPARTURE (TINNY1 • TINNY)

SAN DIEGO, CALIFORNIA

SHL-903 [USN]

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 24L/R: Climbing right turn to 2000 via heading 300° to intercept and proceed via NKX TACAN R-280 to SWOLF. Complete turn within NKX 2 DME. Join NKX R-280 at 2000 mandatory. Cross SWOLF at 2000 mandatory. Then turn left heading 253° to intercept and proceed via MZB VORTAC R-300 to TINNY INT. Thence...

SAN MARCUS TRANSITION (TINNY1•RZS): Via VTU VOR/DME R-111 to VTU, then via RZS VORTAC R-109 to RZS.

SHAFTER TRANSITION (TINNY1•EHF): Via EHF VORTAC R-144 to EHF.

SW-3, 14 JAN 2010 to 11 FEB 2010

VITKO-ONE DEPARTURE (VITKO1 • VITKO)

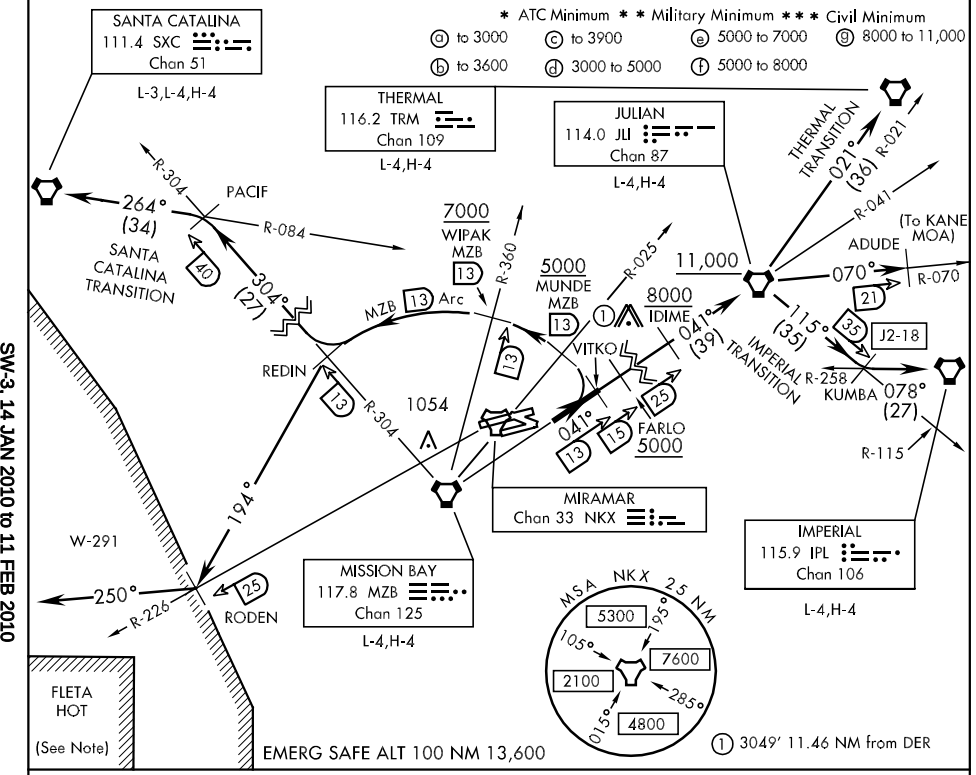
SAN DIEGO, CALIFORNIA

ATIS ★ 352.0
CLNC DEL
125.975 254.325
GND CON
128.625 307.325
MIRAMAR TOWER ★
135.2 298.925
SOCAL DEP CON
132.2 269.1 E

SHL-903 [USN]

Rwy	Knots	60	120	180	240	300	360
* 6L/R(a)	V/V(fpm)	520	1040	1560	2080	2600	3120
** 6L/R(b)	V/V(fpm)	280	560	840	1120	1400	1680
*** 6L/R(c)	V/V(fpm)	300	600	900	1200	1500	1800
* 6L/R(d)	V/V(fpm)	680	1360	2040	2720	3400	4080
* 6L/R(e)	V/V(fpm)	353	706	1059	1412	1765	2118
* 6L/R(f)	V/V(fpm)	300	600	900	1200	1500	1800
* 6L/R(g)	V/V(fpm)	220	440	660	880	1100	1320

* ATC Minimum ** Military Minimum *** Civil Minimum
(a) to 3000 (c) to 3900 (e) 5000 to 7000 (g) 8000 to 11,000
(b) to 3600 (d) 3000 to 5000 (f) 5000 to 8000



SW-3, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 6L/R: Climb via heading 060° to intercept and proceed via MZB VORTAC R-041 to VITKO. Join MZB R-041 at or above 3000. Thence...

ADUDE TRANSITION (VITKO1 • ADUDE): Via MZB R-041 to JLI VORTAC. Then JLI R-070 to ADUDE. Cross FARLO at or above 5000. Cross IDIME at or above 8000. Cross JLI VORTAC at or above 11,000. (To operate in KANE MOA.)

IMPERIAL TRANSITION (VITKO1 • IPL): Via MZB R-041 to JLI VORTAC. Then via JLI R-115 to KUMBA INT, then via IPL VORTAC R-258 to IPL. Cross FARLO at or above 5000. Cross IDIME at or above 8000. Cross JLI VORTAC at or above 11,000.

(Continued on next page)

SHL-903 [USN]

DEPARTURE ROUTE DESCRIPTION

(Continued)

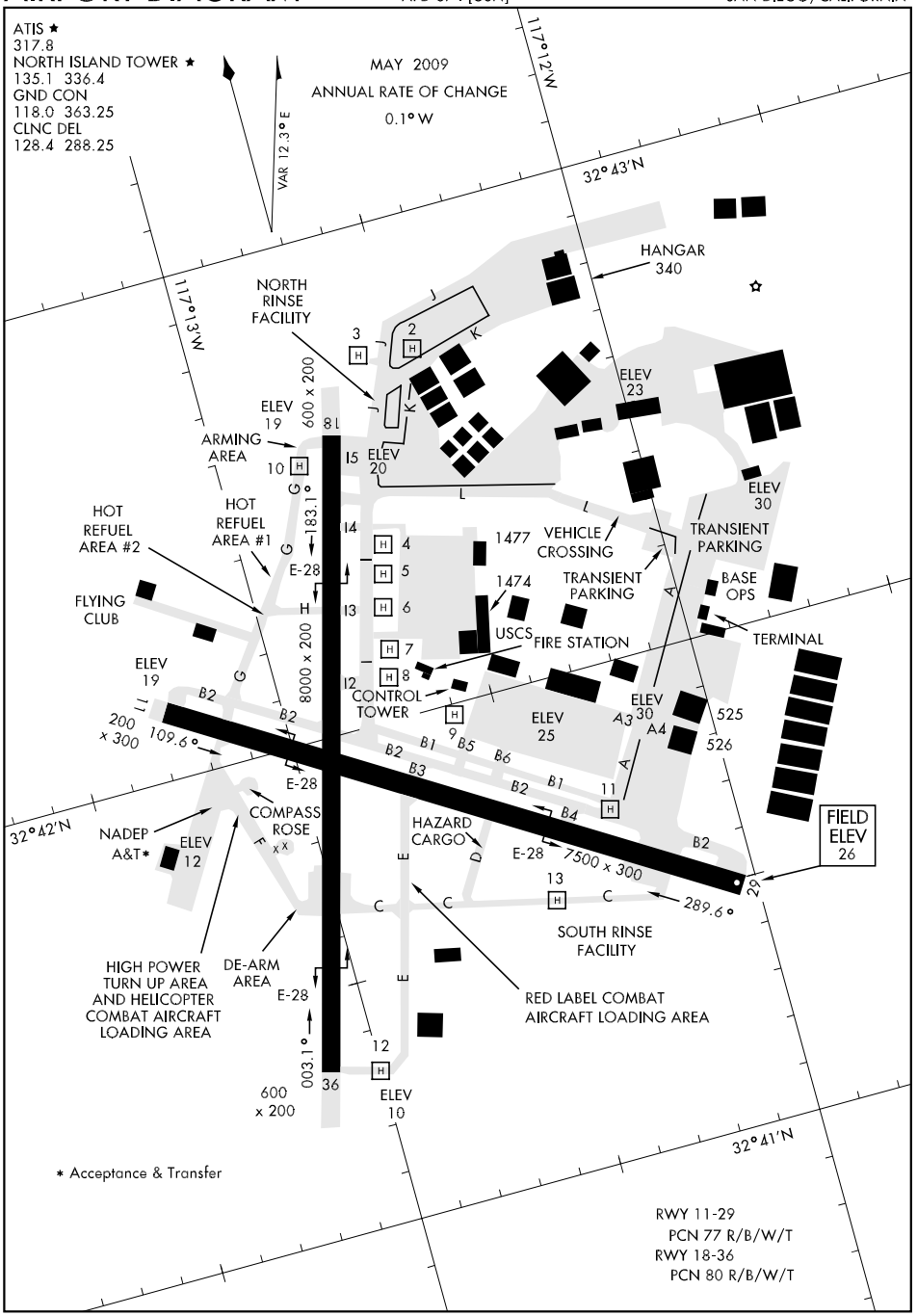
RODEN TRANSITION (VITKO1 • RODEN): Arc N of MZB VORTAC via the 13 mile arc to REDIN. Then turn left heading 194° to intercept NKX R-226 at RODEN. Then turn right heading 250° for entry into W-291. Cross MUNDE at or above 5000. Cross WIPAK at or above 7000.

SANTA CATALINA TRANSITION (VITKO1 • SXC): Arc N of MZB VORTAC via the 13 mile arc to REDIN. Then via MZB R-304 to PACIF INT. Then via SXC R-084 to SXC VORTAC. Cross MUNDE at or above 5000. Cross WIPAK at or above 7000.

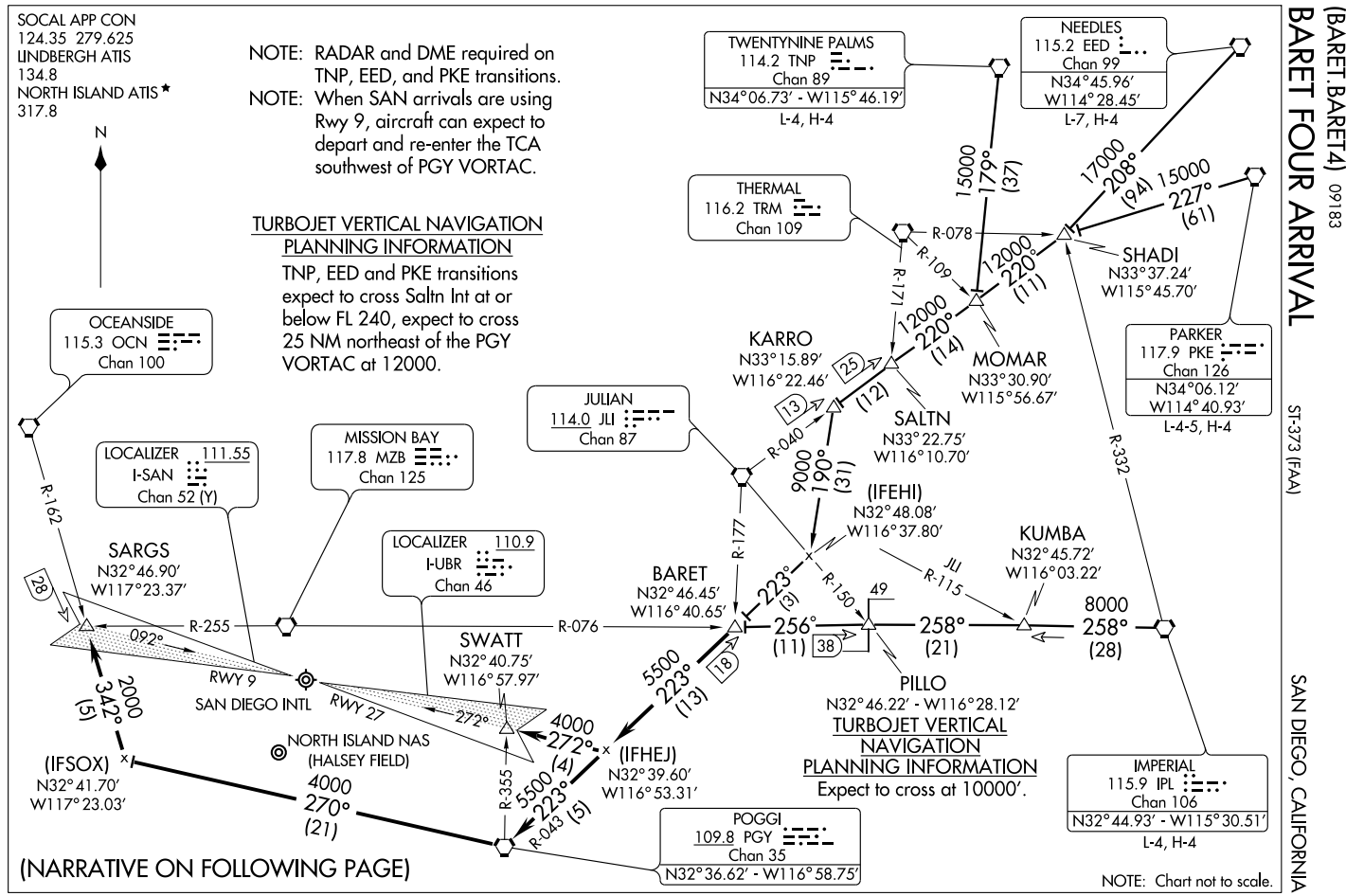
THERMAL TRANSITION (VITKO1 • TRM): Via MZB R-041 to JLI VORTAC. Then via JLI R-021to TRM VORTAC. Cross FARLO at or above 5000. Cross IDIME at or above 8000. Cross JLI VORTAC at or above 11,000.

NOTE:
(1) FLETA HOT-ACTIVE FIRING AREA (DANGER, REMAIN CLEAR).
(2) ALL AIRCRAFT SHOULD MAINTAIN LAST ASSIGNED HEADING/RADIAL AND ALTITUDE TO AVOID INBOUND MILITARY OR CIVIL AIRCRAFT AT HIGHER ALTITUDES!

SW-3, 14 JAN 2010 to 11 FEB 2010



SW-3, 14 JAN 2010 to 11 FEB 2010


SOCAL APP CON
124.35 279.625
LINDBERGH ATIS
134.8
NORTH ISLAND ATIS ★
317.8
N
NOTE: RADAR and DME required on TNP, EED, and PKE transitions.
NOTE: When SAN arrivals are using Rwy 9, aircraft can expect to depart and re-enter the TCA southwest of PGY VORTAC.
TURBOJET VERTICAL NAVIGATION PLANNING INFORMATION
TNP, EED and PKE transitions expect to cross Saltn Int at or below FL 240, expect to cross 25 NM northeast of the PGY VORTAC at 12000.
TWENTYNINE PALMS
114.2 TNP
Chan 89
N34°06.73′ - W115°46.19′
L-4, H-4
NEEDLES
115.2 EED
Chan 99
N34°45.96′
W114°28.45′
L-7, H-4
THERMAL
116.2 TRM
Chan 109
OCEANSIDE
115.3 OCN
Chan 100
JULIAN
114.0 JLI
Chan 87
KARRO
N33°15.89′
W116°22.46′
MOMAR
N33°30.90′
W115°56.67′
SALTN
N33°22.75′
W116°10.70′
SHADI
N33°37.24′
W115°45.70′
PARKER
117.9 PKE
Chan 126
N34°06.12′
W114°40.93′
L-4-5, H-4
LOCALIZER 111.55
I-SAN
Chan 52 (Y)
MISSION BAY
117.8 MZB
Chan 125
LOCALIZER 110.9
I-UBR
Chan 46
SARGS
N32°46.90′
W117°23.37′
BARET
N32°46.45′
W116°40.65′
SWATT
N32°40.75′
W116°57.97′
(IFEHI)
N32°48.08′
W116°37.80′
KUMBA
N32°45.72′
W116°03.22′
PILLO
N32°46.22′ - W116°28.12′
TURBOJET VERTICAL NAVIGATION PLANNING INFORMATION
Expect to cross at 10000′.
SAN DIEGO INTL
NORTH ISLAND NAS (HALSEY FIELD)
RWY 9
RWY 27
(IFSOX)
N32°41.70′
W117°23.03′
(IFHEJ)
N32°39.60′
W116°53.31′
IMPERIAL
115.9 IPL
Chan 106
N32°44.93′ - W115°30.51′
L-4, H-4
POGGI
109.8 PGY
Chan 35
N32°36.62′ - W116°58.75′
(NARRATIVE ON FOLLOWING PAGE)
NOTE: Chart not to scale.
BARET FOUR ARRIVAL
(BARET.BARET4) 09183
ST-373 (FAA)
SAN DIEGO, CALIFORNIA

BARET FOUR ARRIVAL

ARRIVAL DESCRIPTION

IMPERIAL TRANSITION (IPL.BARET4): From over IPL VORTAC via IPL R-258 and MZB R-076 to BARET INT. Thence....

NEEDLES TRANSITION (EED.BARET4): From over EED VORTAC via EED R-208 to SHADI INT, thence via JLI R-040 to MOMAR INT, then via JLI R-040 to KARRO DME. Depart KARRO DME heading 190° to intercept PGY R-043 to BARET INT. Thence....

PARKER TRANSITION (PKE.BARET4): From over PKE VORTAC via PKE R-227 to SHADI INT, thence via JLI R-040 to MOMAR INT, then via JLI R-040 to KARRO DME FIX. Depart KARRO DME heading 190° to intercept PGY R-043 to BARET INT. Thence....

TWENTYNINE PALMS TRANSITION (TNP.BARET4): From over TNP VORTAC via TNP R-179 to MOMAR INT, then via JLI R-040 to KARRO DME FIX. Depart KARRO DME heading 190° to intercept PGY R-043 to PGY VORTAC. Thence....

....WHEN SAN ARRIVALS USING RWY 9: Via PGY R-043 to PGY VORTAC, then via PGY R-270 to intercept the OCN R-162, then via OCN R-162 to SARGS INT. Expect ILS Rwy 9 approach to SAN or ILS-A approach to NZY.

....WHEN SAN ARRIVALS USING RWY 27: Via PGY R-043 to intercept I-UBR localizer, then via I-UBR localizer to SWATT INT. Expect LOC Rwy 27 approach to SAN or LOC-A approach to NZY.

LOST COMMUNICATIONS: In the event of lost communications, North Island arrival shall execute the TACAN Rwy 29 or Rwy 36.

SW-3, 14 JAN 2010 to 11 FEB 2010

HI-TACAN RWY 29

TACAN	APCH CRS	Rwy Idg	7500
Chan 117	296°	TDZE	26
		Arpt Elev	26

JAL-374 [USN]

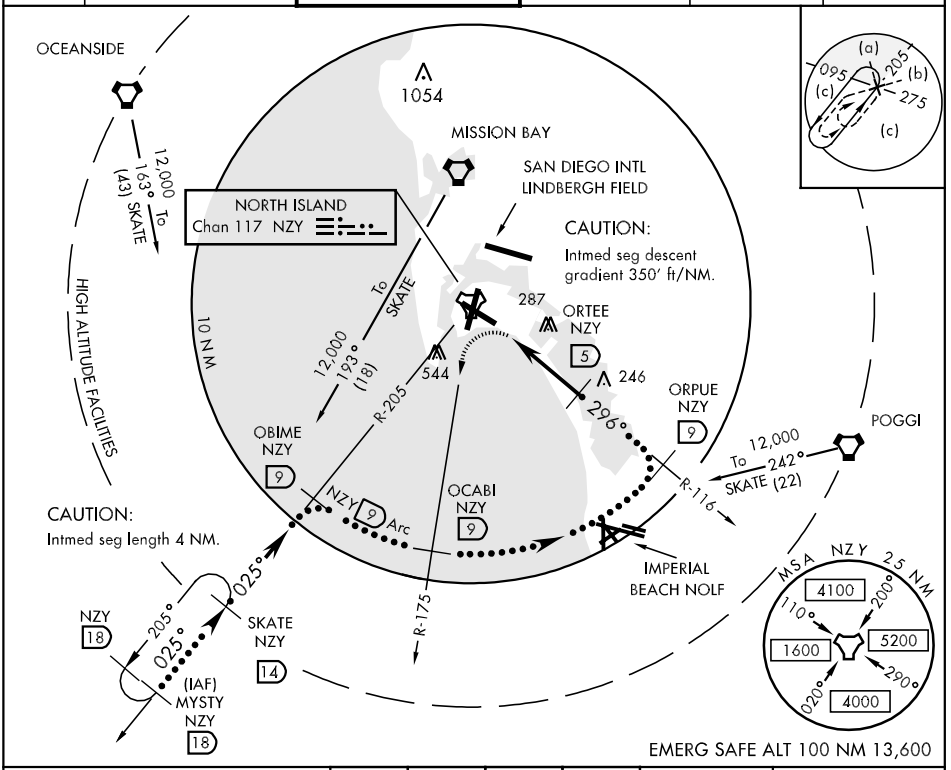
NORTH ISLAND NAS (HALSEY FIELD) (KNZY)

▼ * When ALS inop, increase vis CAT C to 1½ miles, CAT DE to 1¾ miles.
** When ALS inop, increase vis CAT CDE to 1 mile.

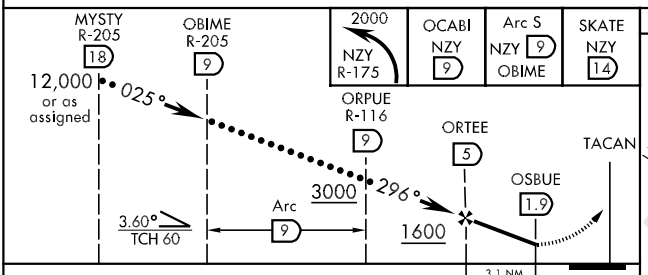
ALSF-1 (A1)

MISSED APPROACH: Climbing to left turn to 2000 via NZY TACAN R-175 to OCABI. Arc S on the NZY 9 DME arc to OBIME, then via NZY R-205 to SKATE and hold.

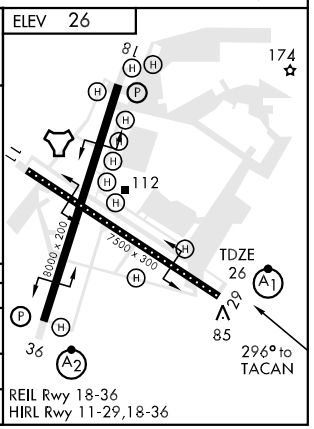
ATIS ★	SOCAL APP CON	NORTH ISLAND TOWER ★	GND CON	CLNC DEL	PAR/ASR
317.8	125.15 317.55	135.1 336.4	118.0 363.25	128.4 288.25	



EMERG SAFE ALT 100 NM 13,600



CATEGORY	C	D	E
S-29 *	540-1 514 (600-1)	540-1¼ 514 (600-1¼)	
CIRCLING	NOT AUTHORIZED		
S-PAR 29 **	276-¾ 250 (300-¾) GS 3.00°		



REIL Rwy 18-36
HIRL Rwy 11-29,18-36

HI-TACAN RWY 36

TACAN	APCH CRS	Rwy ldg	8000
Chan 117	358°	TDZE	19
		Arpt Elev	26

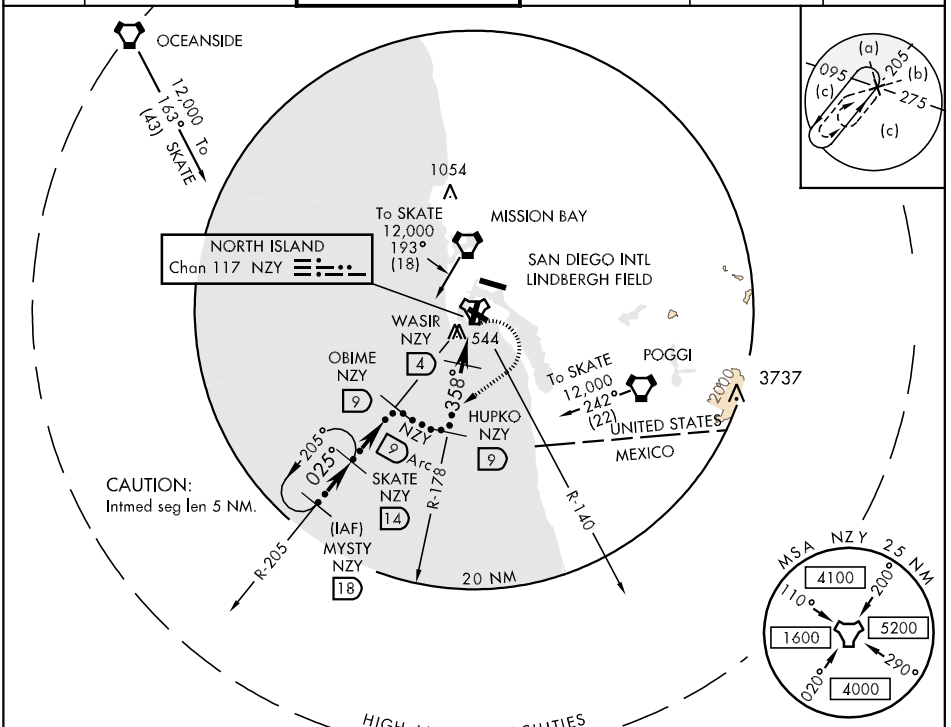
JAL-374 [USN] NORTH ISLAND NAS (HALSEY FIELD) (KNZY)

▼ * When ALS inop, increase vis CAT C to 2¼ miles, CAT D to 2½miles, CAT E to 2¾ miles .
** When ALS inop, increase vis CAT CDE to ½mile.

SALSF (A2)

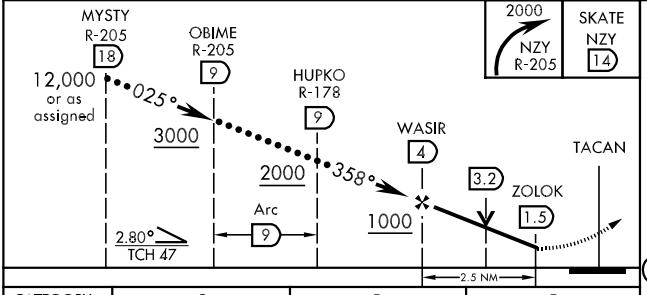
MISSED APPROACH: Climbing right turn to 2000 intercept the NZY TACAN R-205 to SKATE and hold.

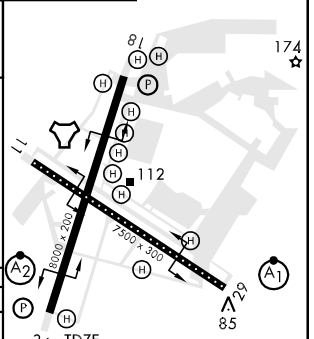
ATIS ★	SOCAL APP CON	NORTH ISLAND TOWER ★	GND CON	CLNC DEL	PAR/ASR
317.8	125.15 317.55	135.1 336.4	118.0 363.25	128.4 288.25	



EMERG SAFE ALT 100 NM 13,600

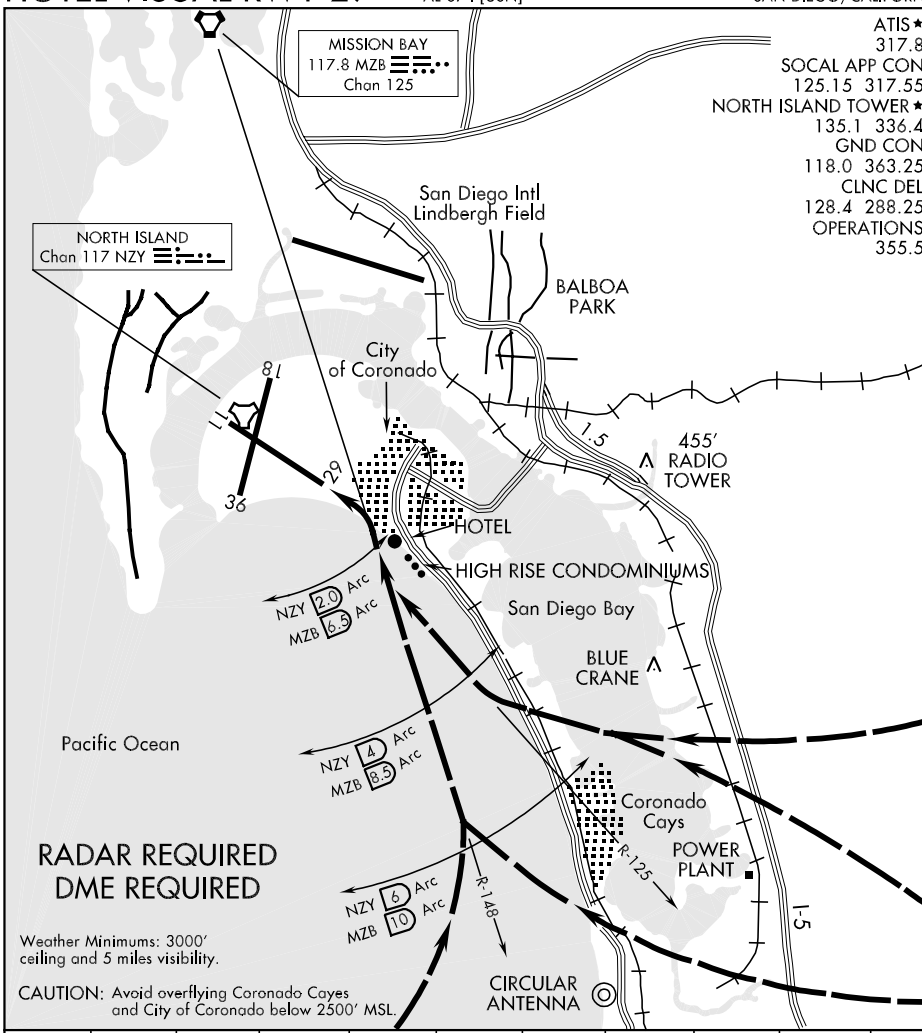
ELEV 26





CATEGORY	C	D	E
S-36 *	800-2 781 (800-2)	800-2 ¼ 781 (800-2¼)	800-2½ 781 (800-2½)
CIRCLING	NOT AUTHORIZED		
S-PAR 36 **	119-¼ 100 (100-¼) GS 3.00°		

REIL Rwy 18-36
HIRL Rwy 11-29, 18-36



HOTEL VISUAL RWY 29

Aircraft avoid overflying Coronado Cayes and City of Coronado below 2500' MSL. Proceed visually via the NZY R-125 or MZB R-148 until reaching NZY 2 DME / MZB 6.5 DME, then maneuver to runway centerline for straight-in Runway 29.

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME-A

LOC I-UBR	APCH CRS	Rwy Idg	N/A
110.9	272°	TDZE	N/A
Chan 46		Arpt Elev	26

AL-374 [USN]

NORTH ISLAND NAS (HALSEY FIELD) (KNZY)

* CAUTION: Maneuvering for circling approach not authorized W of Rwy18-36 centerline. Approach authorized for Rwy 18 or left downwind approach to Rwy 29 after flying down Rwy 18.

MISSED APPROACH: Climb and maintain 2000 via hdg 175°, intercept PGY VORTAC R-250 to HANIS and hold.

ATIS *	SOCAL APP CON	NORTH ISLAND TOWER *	LINDBERGH TOWER	GND CON	CLNC DEL	PAR/ASR
317.8	125.15 317.55	135.1 336.4	118.3 270.9	118.0 363.25	128.4 288.25	

CAUTION: Aircraft executing missed approach after beginning circling maneuver do not return to missed approach point.

Procedure NA for arrivals at RYAHN via V66-440-514 Eastbound.

MISSION BAY
117.8 MZB
Chan 125

LOCALIZER 110.9
I-UBR
Chan 46

(IAF)
RYAHH
PGY
5000
11.8
R-018

SAN DIEGO INTL
LINDBERGH FIELD

R-076
R-084

5000
198°
(27)

I-UBR
CIJHI
8.4

OKAIN
I-UBR
12.3

1328
2791

4000
198°
(4.6)

DOUGA
PGY
8.9
5000

272°
092°

I-UBR
REEBO
6.5

R-304
R-314
R-351
R-018

HANIS
PGY
20

VYDDA
I-UBR
14.3

10 NM

R-250
250°
070°

POGGI
109.8 PGY
Chan 35

1054
524
803
394
544
1054
2801
3675
3737

MSA
MZ B
2.5 NM
130°
220°
340°
4400
2100
5400

EMERG SAFE ALT 100 NM 13,600

ELEV 26

217° 2 NM from ZOLPA

REIL Rwy 18-36
HIRL Rwy 11-29, 18-36

FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

2000
hdg
175°

PGY
R-250

HANIS
PGY
20

REEBO
PGY R-304
I-UBR
6.5

CIJHI
PGY R-314
I-UBR
8.4

OKAIN
PGY R-351
I-UBR
12.3

VYDDA
PGY R-018
I-UBR
14.3

visual to airport
217° 2 NM

ZOLPA
I-UBR
1.3

272°
4000
3600
2400
1800

5.2 NM

CATEGORY	A	B	C	D
CIRCLING *	860-2½ 834 (900-2½)			860-2¾ 834 (900-2¾)

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME-B

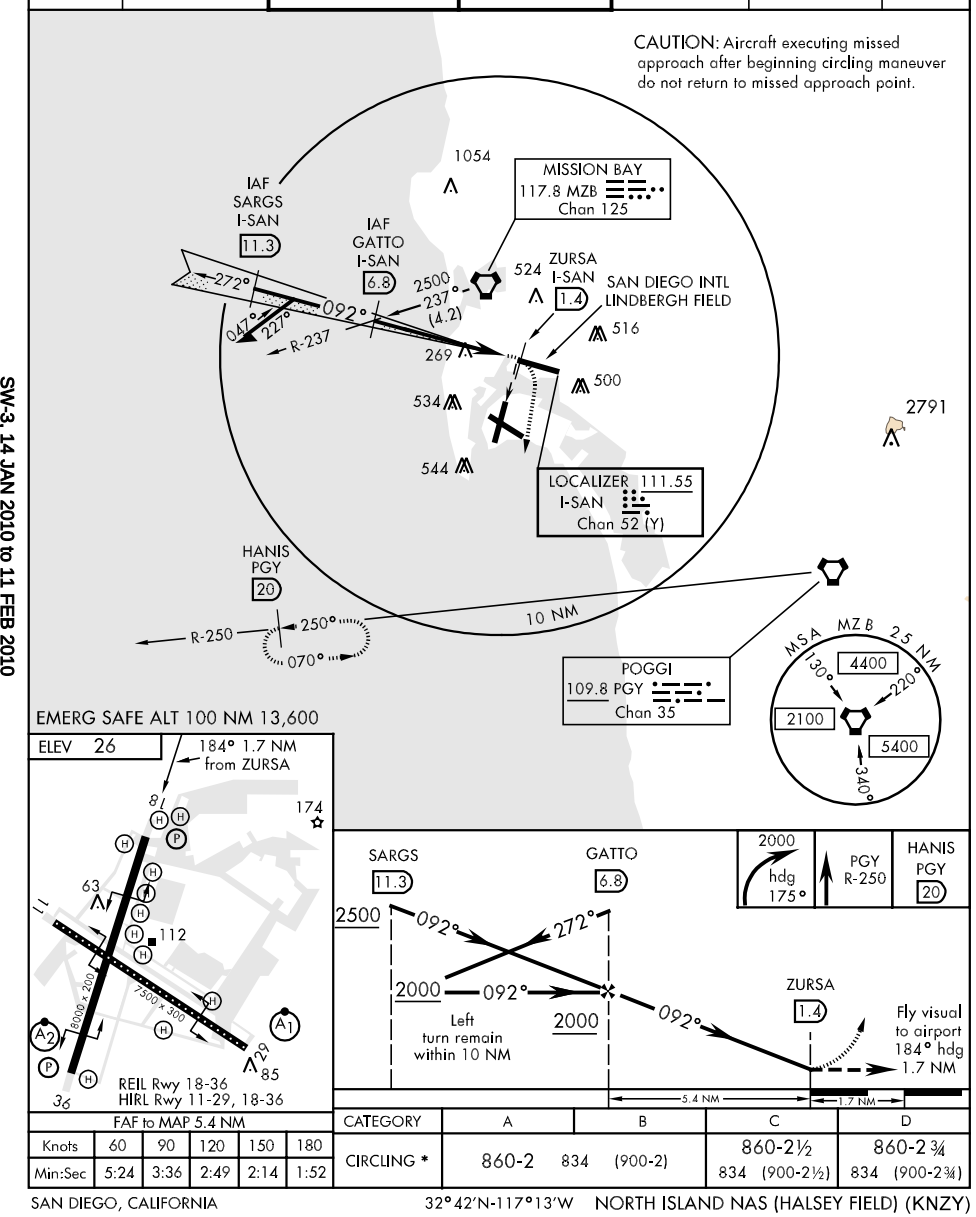
LOC I-SAN 111.55 Chan 52 (Y)	APCH CRS 092°	Rwy Idg N/A TDZE N/A Arpt Elev 26	AL-374 [USN]	NORTH ISLAND NAS (HALSEY FIELD) (KNZY)

* CAUTION: Maneuvering for circling approach not authorized W of Rwy18-36 centerline. Approach authorized for Rwy 18 or left downwind approach to Rwy 29 after flying down Rwy 18.

MISSED APPROACH: Climb and maintain 2000 via hdg 175°,intercept PGY VORTAC R-250 to HANIS and hold.

ATIS ★	SOCAL APP CON	NORTH ISLAND TOWER ★	LINDBERGH TOWER	GND CON	CLNC DEL	PAR/ASR
317.8	125.15 317.55	135.1 336.4	118.3 270.9	118.0 363.25	128.4 288.25	

CAUTION: Aircraft executing missed approach after beginning circling maneuver do not return to missed approach point.



FAF to MAP 5.4 NM					
Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:49	2:14	1:52

CATEGORY	A	B	C	D
CIRCLING *	860-2 834 (900-2)		860-2½ 834 (900-2½)	860-2¾ 834 (900-2¾)

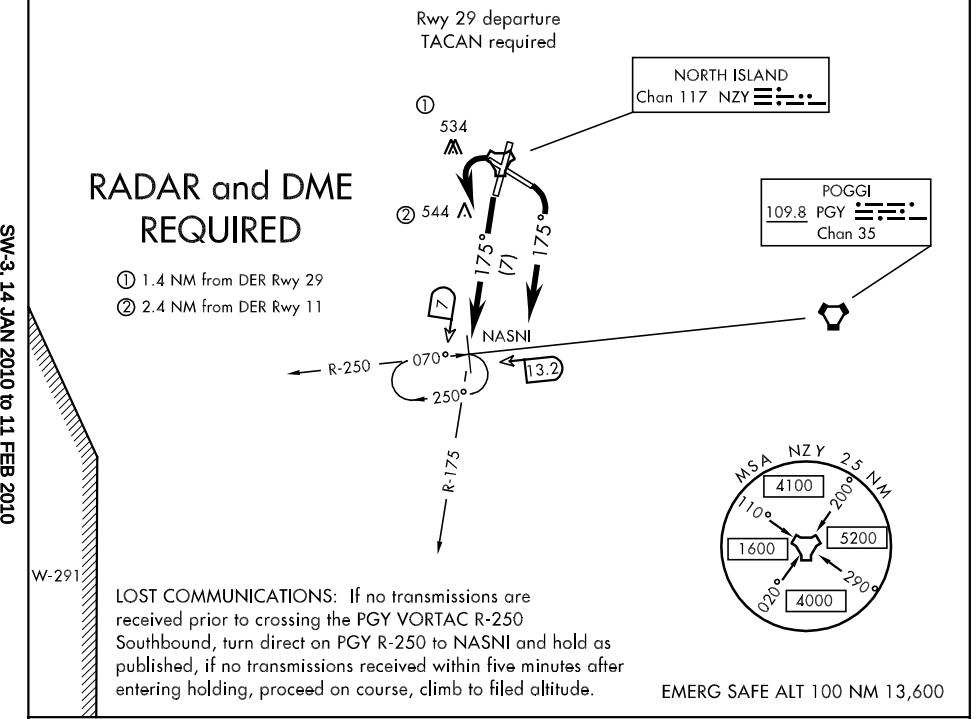
SW-3, 14 JAN 2010 to 11 FEB 2010

ATIS ★
317.8
CLNC DEL
128.4 288.25
GND CON
118.0 363.25
NORTH ISLAND TOWER ★
135.1 336.4
SOCAL DEP CON
125.15 317.55

Minimum Climb Rate

Rwy	Knots	60	120	180	240	300	360
11 ⓐ	V/V(fpm)	265	530	795	1060	1325	1590
11 ⓑ	V/V(fpm)	290	580	870	1160	1450	1740
29 ⓒ	V/V(fpm)	410	820	1230	1640	2050	2460
29 ⓓ	V/V(fpm)	480	960	1440	1920	2400	2880

ⓐ Military climb to 700 or 600-2¼ authorized in lieu of climb rate.
ⓑ Civil climb to 700 or 600-2¼ authorized in lieu of climb rate.
ⓒ Military climb to 400 or 600-2½ authorized in lieu of climb rate.
ⓓ Civil climb to 500 or 600-2½ authorized in lieu of climb rate.



LOST COMMUNICATIONS: If no transmissions are received prior to crossing the PGY VORTAC R-250 Southbound, turn direct on PGY R-250 to NASNI and hold as published, if no transmissions received within five minutes after entering holding, proceed on course, climb to filed altitude.

EMERG SAFE ALT 100 NM 13,600

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 11: Immediate climbing right turn to 2000 via heading 175°, remain within NZY TACAN 1.4 DME to not overfly the City of Coronado, thence...

TAKE-OFF RWY 18: Climb to 2000 via heading 175°, thence ....

TAKE-OFF RWY 29: Immediate climbing left turn to 2000, remain within NZY TACAN 1 DME to not overfly Point Loma, intercept the NZY R-175 to NASNI, thence...

Expect radar vector to join assigned route.

SW-3, 14 JAN 2010 to 11 FEB 2010

RNAV (GPS) RWY 36

APCH CRS	Rwy ldg	8000
355°	TDZE	19
	Arpt Elev	26

AL-374 [USN]

NORTH ISLAND NAS (HALSEY FIELD) (KNZY)

▼ * When ALS inop, increase vis CAT ABCD to 1¼ miles.
** When ALS inop, increase vis CAT AB to 1 mile, CAT C to 1¼ miles, CAT D to 1½ miles.

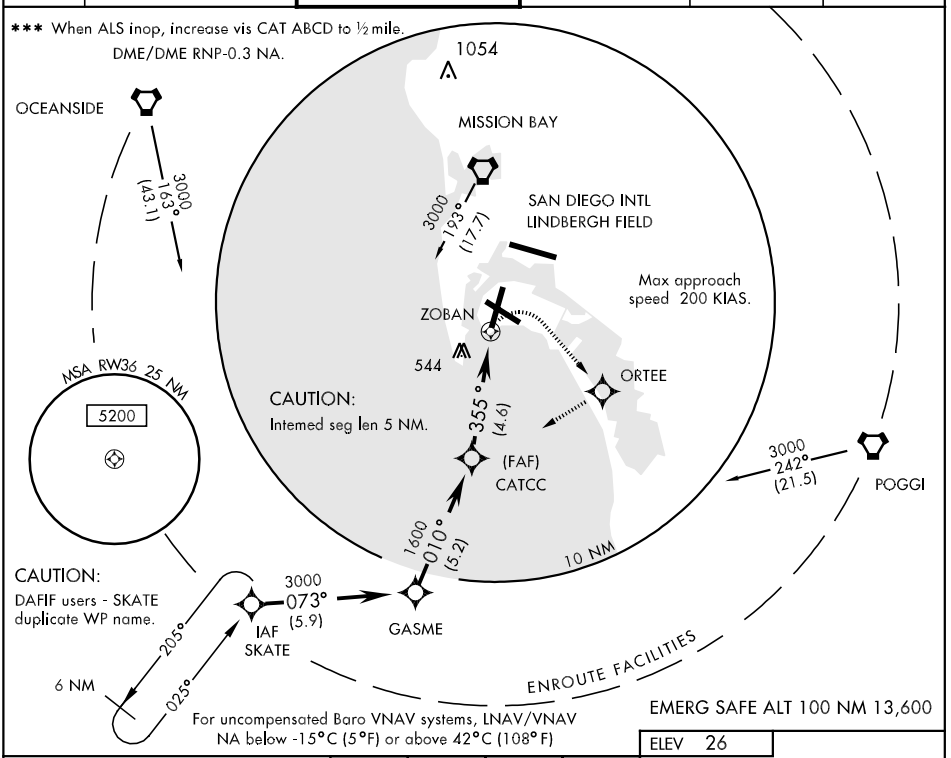
SALSF (A2)

MISSED APPROACH: Climbing right turn to 2000 direct ORTEE, then turn right via track 226° to SKATE and hold.

ATIS ★	SOCAL APP CON	NORTH ISLAND TOWER ★	GND CON	CLNC DEL	PAR/ASR
317.8	125.15 317.55	135.1 336.4	118.0 363.25	128.4 288.25	

*** When ALS inop, increase vis CAT ABCD to ½ mile.

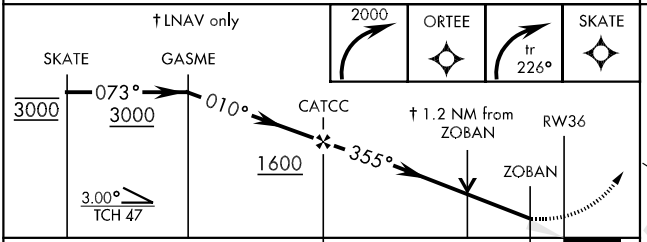
DME/DME RNP-0.3 NA.



For uncompensated Baro VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 42°C (108°F)

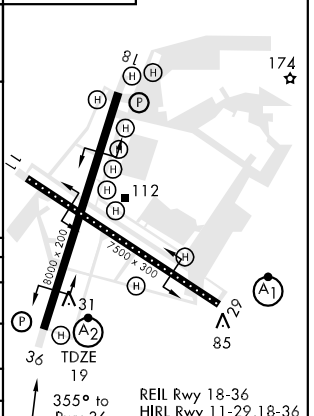
EMERG SAFE ALT 100 NM 13,600

† LNAV only



CATEGORY	A	B	C	D
LNAV/VNAV DA *	380-1	361	(400-1)	
LNAV MDA **	460-¾	441 (500-¾)	460-1 441 (500-1)	460-1¼ 441 (500-1¼)
CIRCLING	NOT AUTHORIZED			
S-PAR 36***	119-¼	100 (100-½)	GS 3.00°	

ELEV 26



TACAN RWY 29

TACAN	APCH CRS	Rwy ldg	7500
Chan 117	296°	TDZE	26
		Arpt Elev	26

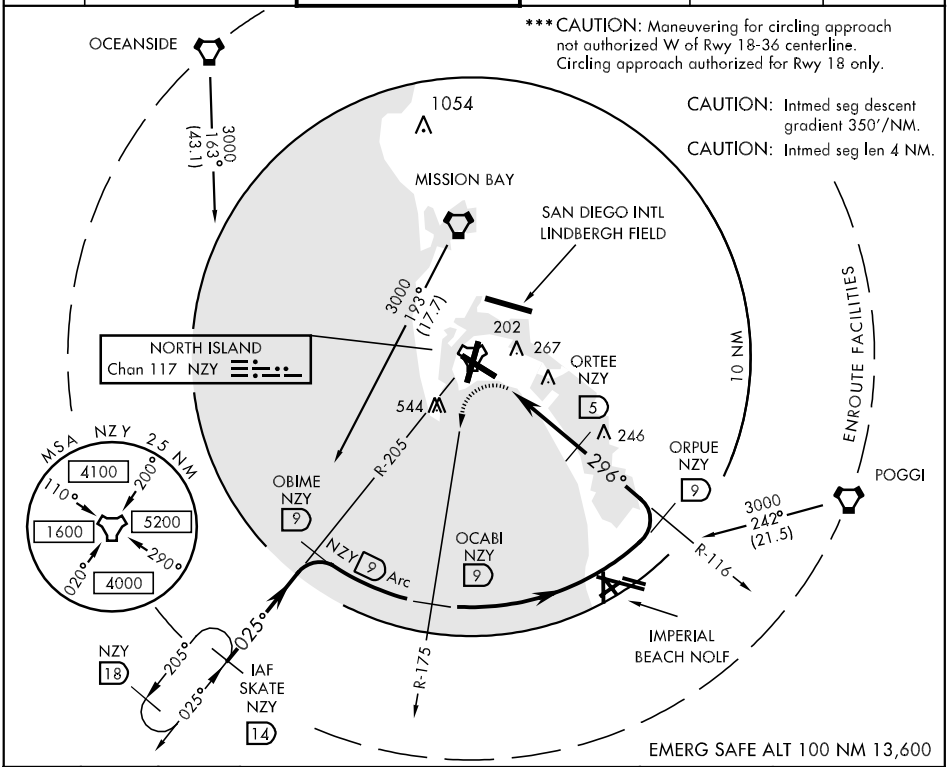
AL-374 [USN] NORTH ISLAND NAS (HALSEY FIELD) (KNZY)

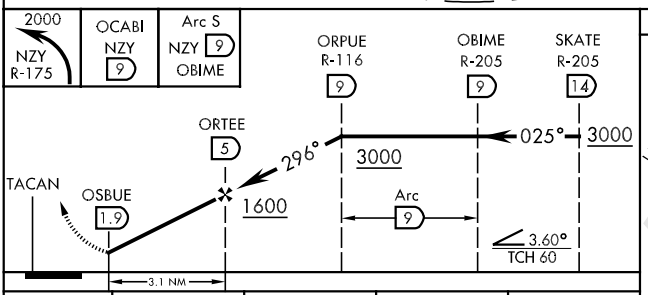
▼ * When ALS inop, increase vis CAT AB to 1 mile, CAT C to 1½ miles, CAT D to 1¾ miles.
** When ALS inop, increase vis CAT ABCD to 1 mile.

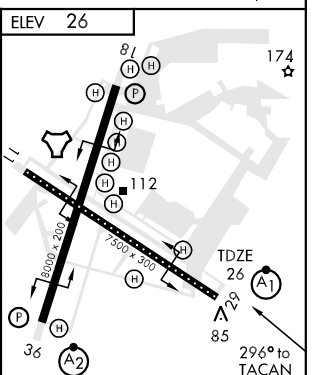
ALSF-1 (A1)

MISSED APPROACH: Climbing left turn to 2000 via NZY TACAN R-175 to OCABI. Arc S on NZY 9 DME arc to OBIME, then via NZY R-205 to SKATE and hold.

ATIS ★	SOCAL APP CON	NORTH ISLAND TOWER ★	GND CON	CLNC DEL	PAR/ASR
317.8	125.15 317.55	135.1 336.4	118.0 363.25	128.4 288.25	







CATEGORY	A	B	C	D
S-29 *	540-½ 514 (600-½)		540-1 514 (600-1)	540-1¼ 514 (600-1¼)
CIRCLING***	620-1 594 (600-1)		NOT AUTHORIZED	
S-PAR 29 **	276-¾ 250 (300-¾) GS 3.00°			

REIL Rwy 18-36
HIRL Rwy 11-29,18-36

SW-3, 14 JAN 2010 to 11 FEB 2010

TACAN RWY 36

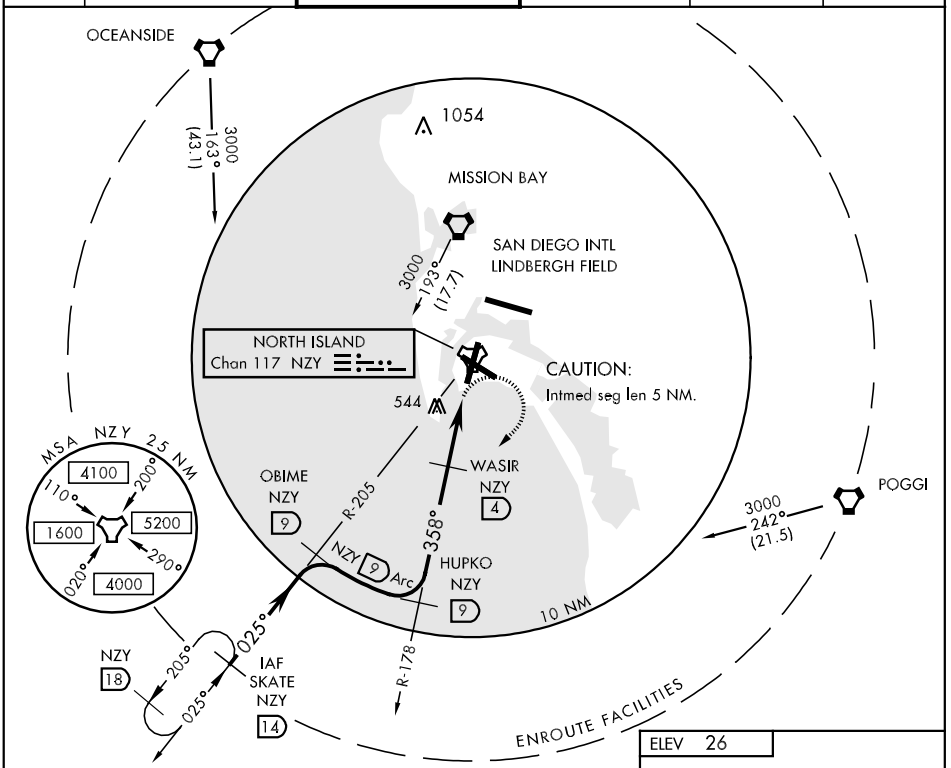
TACAN NZY Chan 117	APCH CRS 358°	Rwy ldg 8000 TDZE 19 Arpt Elev 26	AL-374 [USN]	NORTH ISLAND NAS (HALSEY FIELD) (KNZY)

* When ALS inop, increase vis CAT A to 1 mile, CAT B to 1¼ miles, CAT C to 2¼ miles, CAT D to 2½ miles.
** When ALS inop, increase vis CAT ABCD to ½ mile.

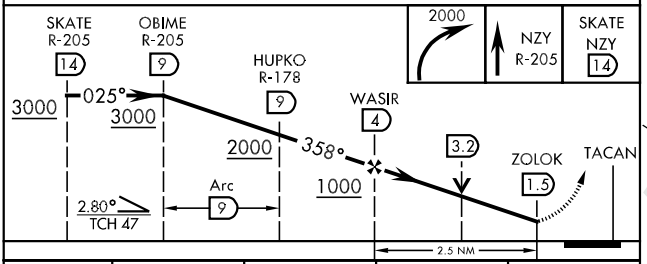
SALSF A2

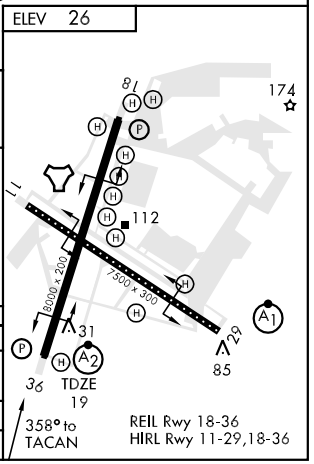
MISSED APPROACH: Climbing right turn to 2000 intercept the NZY TACAN R-205 to SKATE and hold.

ATIS ★	SOCAL APP CON	NORTH ISLAND TOWER ★	GND CON	CLNC DEL	PAR/ASR
317.8	125.15 317.55	135.1 336.4	118.0 363.25	128.4 288.25	



EMERG SAFE ALT 100 NM 13,600





CATEGORY	A	B	C	D
S-36 *	800-¾ 781 (800-¾)	800-1 781 (800-1)	800-2 781 (800-2)	800-2¼ 781 (800-2¼)
CIRCLING	NOT AUTHORIZED			
S-PAR 36 **	119-¼	100	(100-¼)	GS 3.00°

VOR/DME RWY 29

VORTAC PGY 109.8 Chan 35	APCH CRS 279°	Rwy ldg 7500 TDZE 26 Arpt Elev 26

AL-374 [USN] NORTH ISLAND NAS (HALSEY FIELD) (KNZY)

* When ALS inop, increase vis CAT AB to 1 mile, CAT C to 1¾ miles, CAT D to 2 miles.
** When ALS inop, increase vis CAT ABCD to 1 mile.

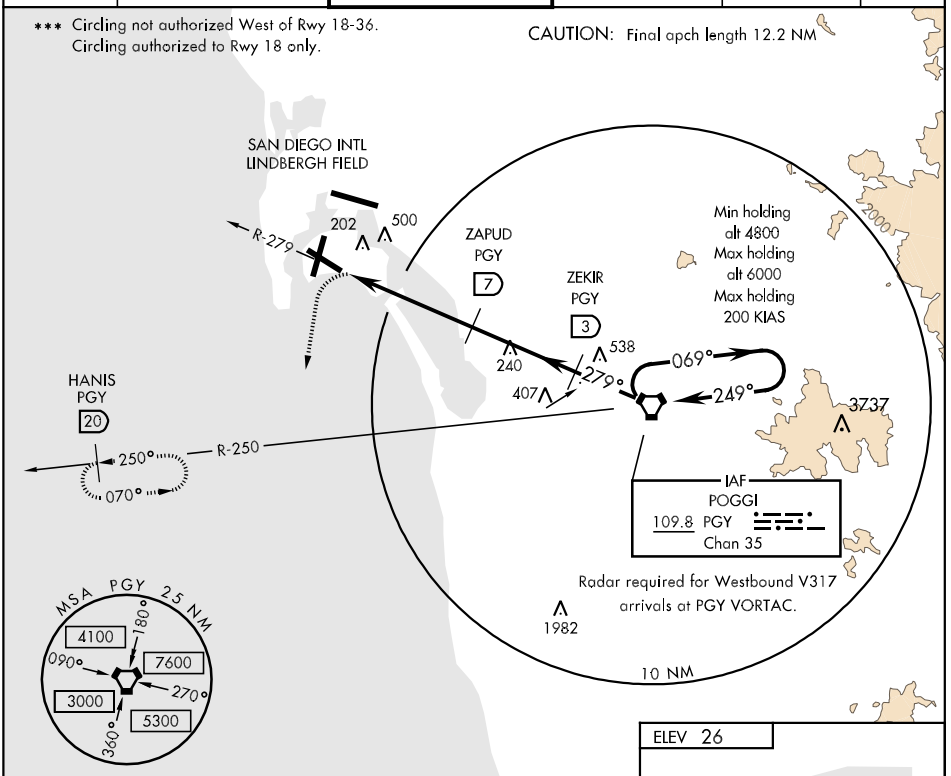
ALSF-1

MISSED APPROACH: Climbing left turn to 2000 via hdg 175° intercept PGY VORTAC R-250 to HANIS and hold.

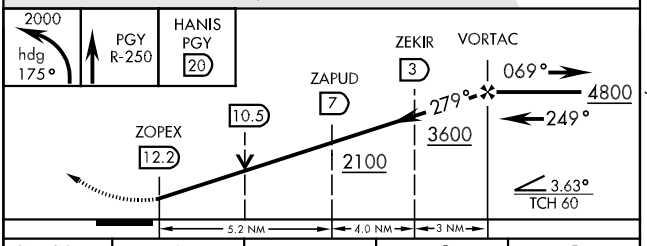
ATIS ★	SOCAL APP CON	NORTH ISLAND TOWER ★	GND CON	CLNC DEL	PAR/ASR
317.8	125.15 317.55	135.1 336.4	118.0 363.25	128.4 288.25	

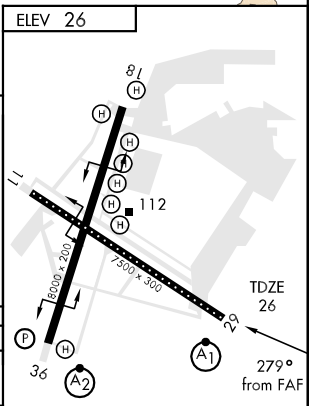
*** Circling not authorized West of Rwy 18-36.
Circling authorized to Rwy 18 only.

CAUTION: Final apch length 12.2 NM

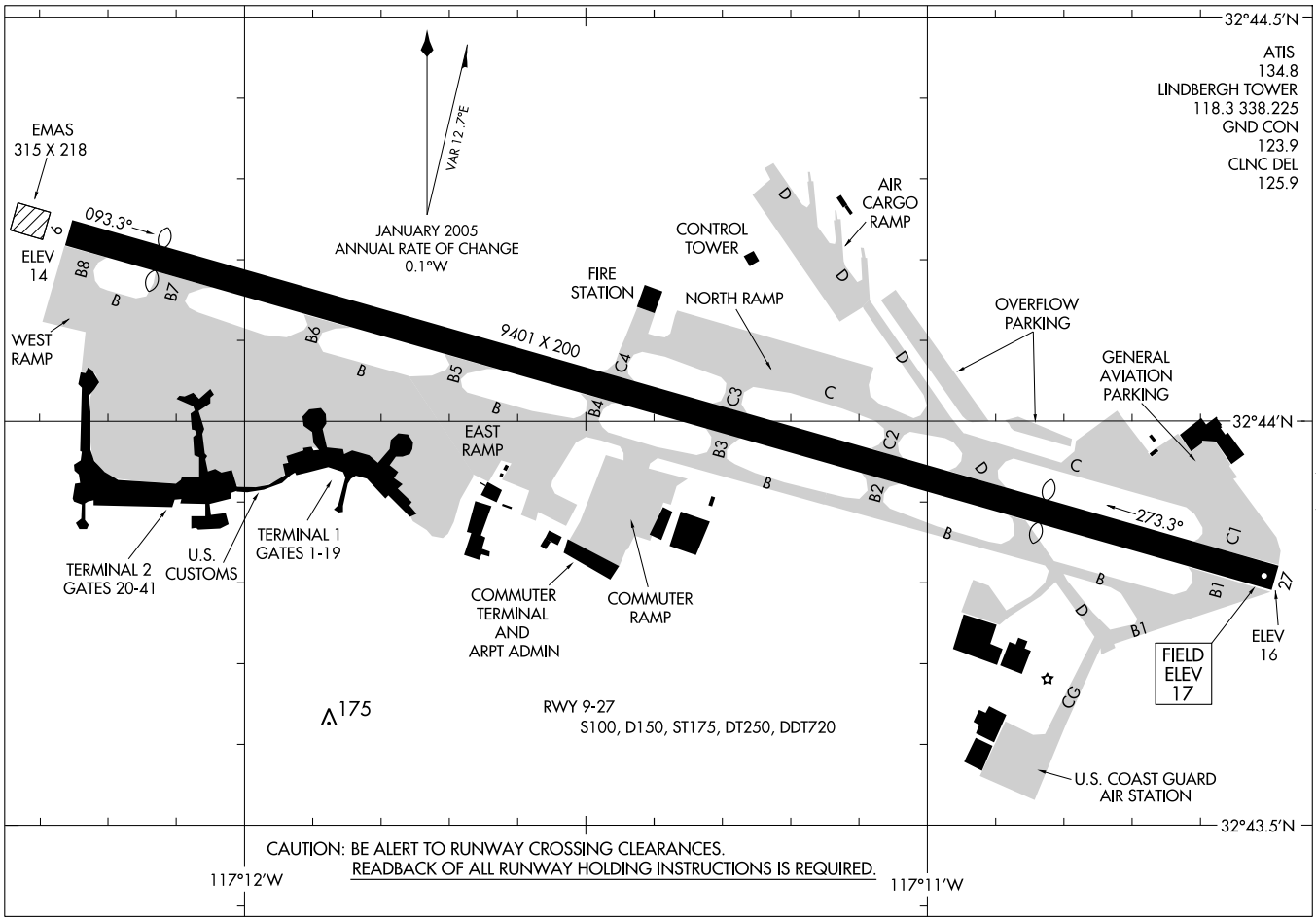


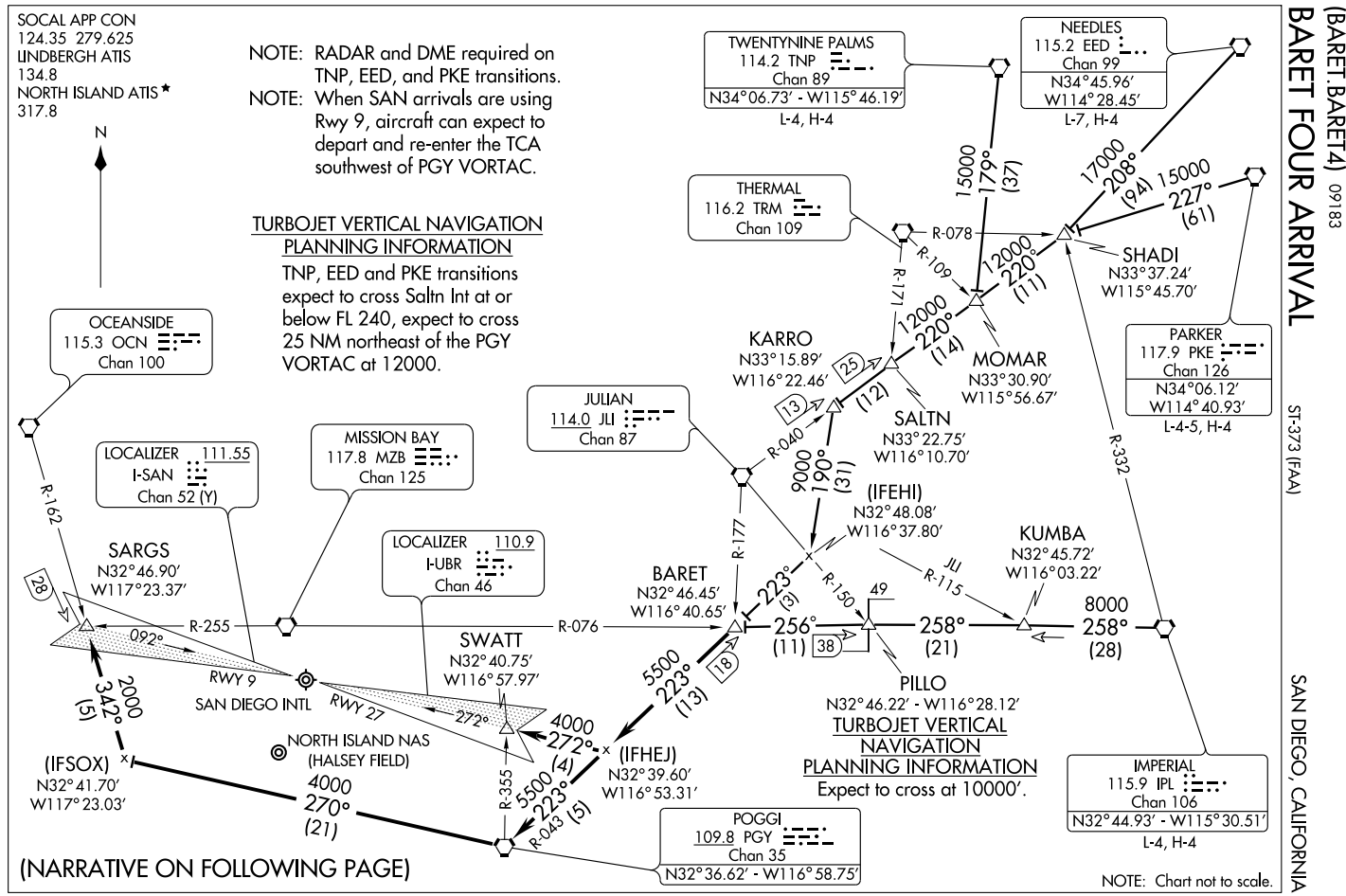
EMERG SAFE ALT 100 NM 13,600





CATEGORY	A	B	C	D
S-29 *	640-½ 614 (700-½)		640-1¼ 614 (700-1¼)	640-1½ 614 (700-1½)
CIRCLING***	640-1 614 (700-1)		NOT AUTHORIZED	
S-PAR 29**	276-¾ 250 (300-¾) GS 3.00°			


AIRPORT DIAGRAM
SAN DIEGO INTL (SAN)
SAN DIEGO, CALIFORNIA
AL-373 (FAA)
32°44.5'N
32°44'N
32°43.5'N
117°12'W
117°11'W
ATIS
134.8
LINDBERGH TOWER
118.3 338.225
GND CON
123.9
CLNC DEL
125.9
EMAS
315 X 218
ELEV
14
093.3°
273.3°
9401 X 200
VAR 12.7°E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°W
WEST
RAMP
CONTROL
TOWER
FIRE
STATION
NORTH RAMP
AIR
CARGO
RAMP
OVERFLOW
PARKING
GENERAL
AVIATION
PARKING
EAST
RAMP
TERMINAL 2
GATES 20-41
U.S.
CUSTOMS
TERMINAL 1
GATES 1-19
COMMUTER
TERMINAL
AND
ARPT ADMIN
COMMUTER
RAMP
FIELD
ELEV
17
ELEV
16
U.S. COAST GUARD
AIR STATION
A175
RWY 9-27
S100, D150, ST175, DT250, DDT720
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.


SOCAL APP CON
124.35 279.625
LINDBERGH ATIS
134.8
NORTH ISLAND ATIS ★
317.8
N
NOTE: RADAR and DME required on TNP, EED, and PKE transitions.
NOTE: When SAN arrivals are using Rwy 9, aircraft can expect to depart and re-enter the TCA southwest of PGY VORTAC.
TURBOJET VERTICAL NAVIGATION PLANNING INFORMATION
TNP, EED and PKE transitions expect to cross Saltn Int at or below FL 240, expect to cross 25 NM northeast of the PGY VORTAC at 12000.
TWENTYNINE PALMS
114.2 TNP
Chan 89
N34°06.73′ - W115°46.19′
L-4, H-4
NEEDLES
115.2 EED
Chan 99
N34°45.96′
W114°28.45′
L-7, H-4
THERMAL
116.2 TRM
Chan 109
OCEANSIDE
115.3 OCN
Chan 100
JULIAN
114.0 JLI
Chan 87
KARRO
N33°15.89′
W116°22.46′
MOMAR
N33°30.90′
W115°56.67′
SALTN
N33°22.75′
W116°10.70′
SHADI
N33°37.24′
W115°45.70′
PARKER
117.9 PKE
Chan 126
N34°06.12′
W114°40.93′
L-4-5, H-4
LOCALIZER 111.55
I-SAN
Chan 52 (Y)
MISSION BAY
117.8 MZB
Chan 125
LOCALIZER 110.9
I-UBR
Chan 46
SARGS
N32°46.90′
W117°23.37′
BARET
N32°46.45′
W116°40.65′
SWATT
N32°40.75′
W116°57.97′
(IFEHI)
N32°48.08′
W116°37.80′
KUMBA
N32°45.72′
W116°03.22′
PILLO
N32°46.22′ - W116°28.12′
TURBOJET VERTICAL NAVIGATION PLANNING INFORMATION
Expect to cross at 10000′.
SAN DIEGO INTL
NORTH ISLAND NAS (HALSEY FIELD)
RWY 9
RWY 27
(IFSOX)
N32°41.70′
W117°23.03′
(IFHEJ)
N32°39.60′
W116°53.31′
IMPERIAL
115.9 IPL
Chan 106
N32°44.93′ - W115°30.51′
L-4, H-4
POGGI
109.8 PGY
Chan 35
N32°36.62′ - W116°58.75′
(NARRATIVE ON FOLLOWING PAGE)
NOTE: Chart not to scale.
BARET FOUR ARRIVAL
(BARET.BARET4) 09183
ST-373 (FAA)
SAN DIEGO, CALIFORNIA

BARET FOUR ARRIVAL

ARRIVAL DESCRIPTION

IMPERIAL TRANSITION (IPL.BARET4): From over IPL VORTAC via IPL R-258 and MZB R-076 to BARET INT. Thence....

NEEDLES TRANSITION (EED.BARET4): From over EED VORTAC via EED R-208 to SHADI INT, thence via JLI R-040 to MOMAR INT, then via JLI R-040 to KARRO DME. Depart KARRO DME heading 190° to intercept PGY R-043 to BARET INT. Thence....

PARKER TRANSITION (PKE.BARET4): From over PKE VORTAC via PKE R-227 to SHADI INT, thence via JLI R-040 to MOMAR INT, then via JLI R-040 to KARRO DME FIX. Depart KARRO DME heading 190° to intercept PGY R-043 to BARET INT. Thence....

TWENTYNINE PALMS TRANSITION (TNP.BARET4): From over TNP VORTAC via TNP R-179 to MOMAR INT, then via JLI R-040 to KARRO DME FIX. Depart KARRO DME heading 190° to intercept PGY R-043 to PGY VORTAC. Thence....

....WHEN SAN ARRIVALS USING RWY 9: Via PGY R-043 to PGY VORTAC, then via PGY R-270 to intercept the OCN R-162, then via OCN R-162 to SARGS INT. Expect ILS Rwy 9 approach to SAN or ILS-A approach to NZY.

....WHEN SAN ARRIVALS USING RWY 27: Via PGY R-043 to intercept I-UBR localizer, then via I-UBR localizer to SWATT INT. Expect LOC Rwy 27 approach to SAN or LOC-A approach to NZY.

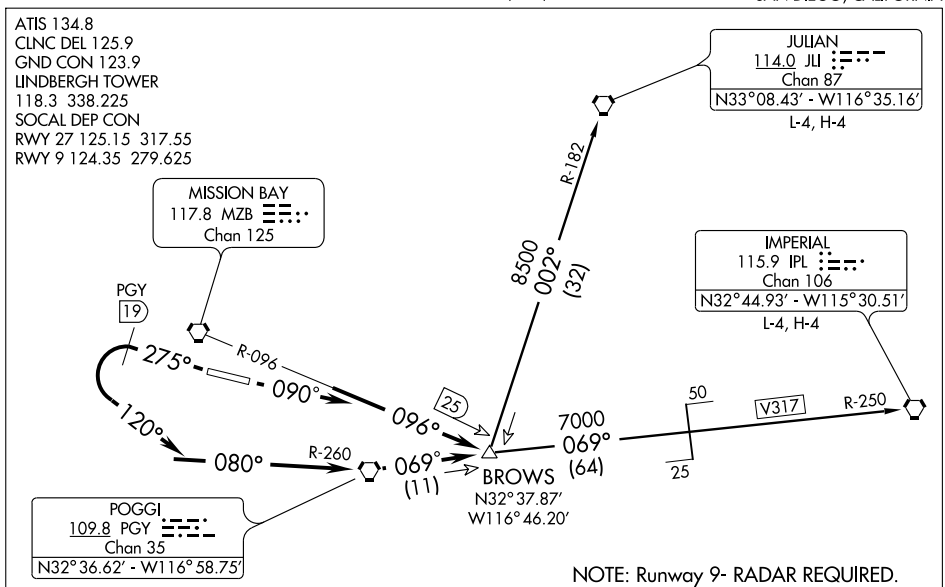
LOST COMMUNICATIONS: In the event of lost communications, North Island arrival shall execute the TACAN Rwy 29 or Rwy 36.

SW-3, 14 JAN 2010 to 11 FEB 2010

BORDER FIVE DEPARTURE

SL-373 (FAA)

SAN DIEGO INTL (SAN)
SAN DIEGO, CALIFORNIA



NOTE: Runway 9- RADAR REQUIRED.

NOTE: Runway 27- DME REQUIRED.

TAKE-OFF MINIMUMS

Rwy 9, 300-1 with minimum climb of 610′ per NM to 1900.

Rwy 27, 300-1½ or standard with minimum climb of 317′ per NM to 400.

TAKE-OFF NOTES

Rwy 9: Trees 792 feet from departure end of runway, 142 feet left of centerline, 60′ AGL/99′ MSL.
Antenna 740 feet from departure end of runway, 302 feet right of centerline, 62′ AGL/82′ MSL.
Antenna 1946 feet from departure end of runway, 969 feet left of centerline, 126′ AGL/192′ MSL.
Trees 1377 feet from departure end of runway, 285 feet left of centerline, 80′ AGL/135′ MSL.
Trees 4625 feet from departure end of runway, 1414 feet left of centerline, 250′ AGL/385′ MSL.

Rwy 27: Trees 1 mile from departure end of runway, 685 feet right of centerline, 220′ AGL/253′ MSL.
Flagpole 2511 feet from departure end of runway, 700 feet left of centerline, 90′ AGL/116′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

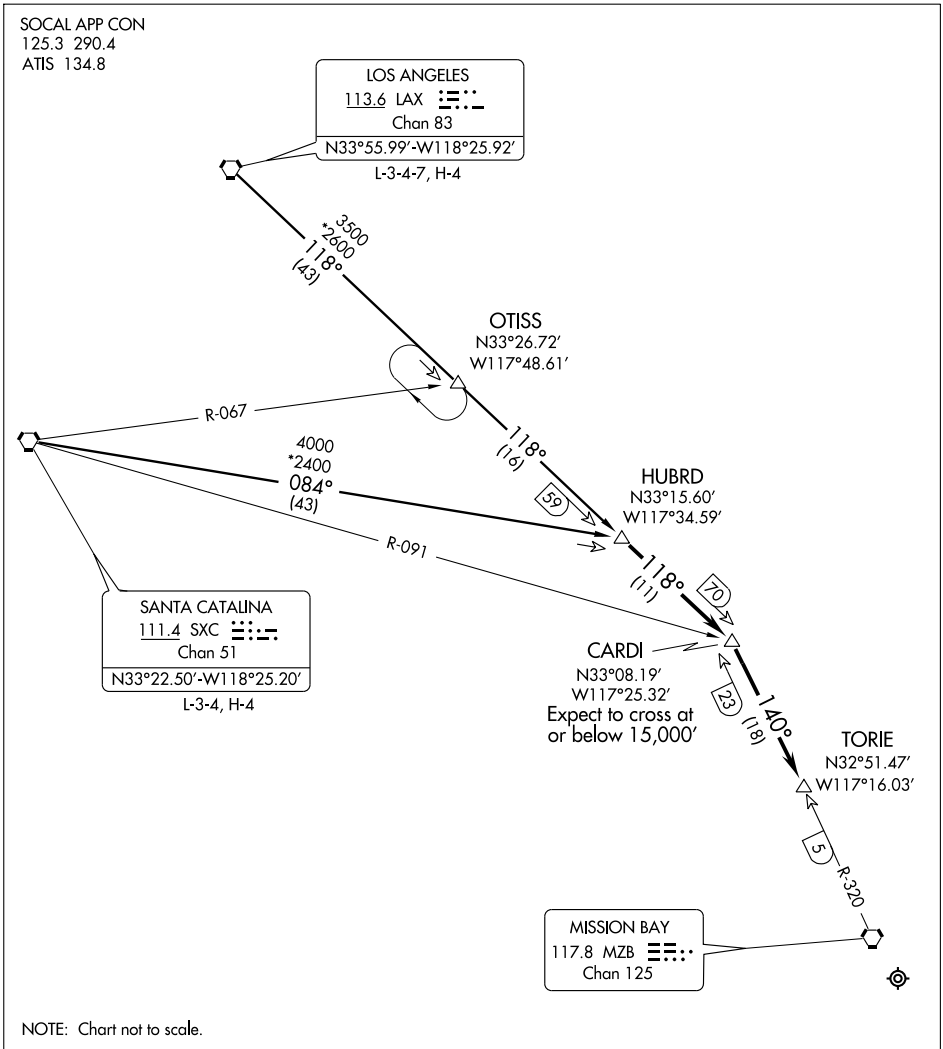
TAKE-OFF RUNWAY 9: Climb via heading 090° to intercept and proceed via MZB R-096 to BROWS INT. Then via (transition) or (assigned route). Maintain assigned altitude.

TAKE-OFF RUNWAY 27: Climb via heading 275° until PGY 19 DME, then turn left via heading 120° to intercept and proceed via PGY R-260 and R-069 to BROWS INT. Then via (transition) or (assigned route). Maintain assigned altitude.

IMPERIAL TRANSITION (BRDR5.IPL): From over BROWS INT via PGY R-069 and IPL R-250 to IPL VORTAC.

JULIAN TRANSITION (BRDR5.JLI): From over BROWS INT via JLI R-182 to JLI VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010



NOTE: Chart not to scale.

LOS ANGELES TRANSITION (LAX.HUBRD1): From over LAX VORTAC via LAX R-118 to OTISS INT, then via LAX R-118 to HUBRD INT. Thence . . . .

SANTA CATALINA TRANSITION (SXC.HUBRD1): From over SXC VORTAC via SXC R-084 to HUBRD INT. Thence . . . .

. . . . From over HUBRD INT via LAX R-118 to CARDI FIX via MZB R-320 to TORIE FIX. Expect vector to final approach course.

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-SAN	APP CRS	Rwy Idg	8701
111.55	092°	TDZE	17
Chan 52 (Y)		Apt Elev	17

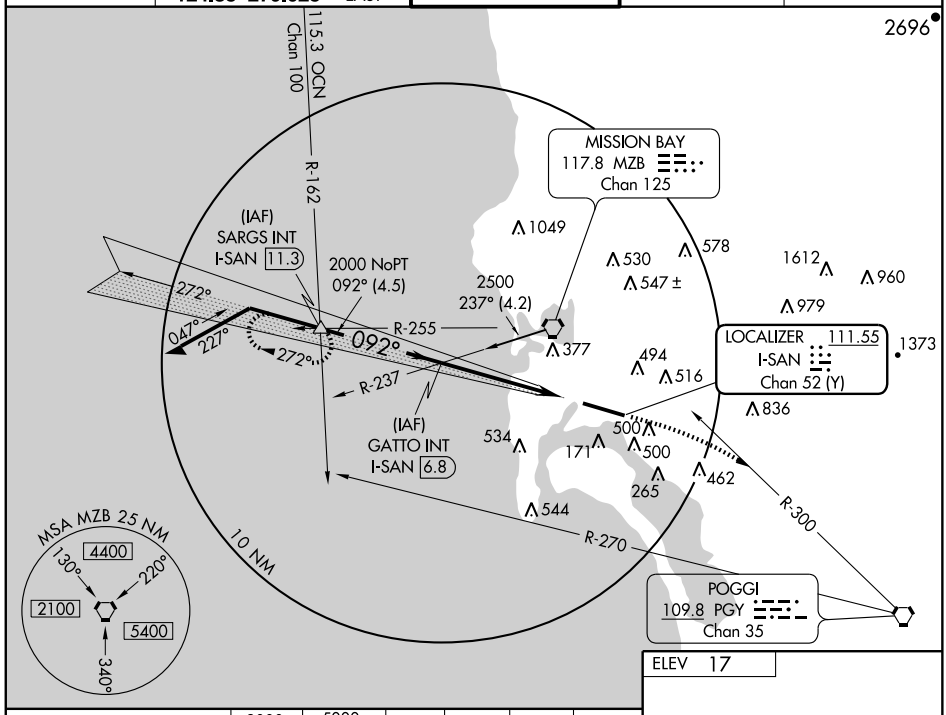
ILS or LOC RWY 9

SAN DIEGO INTL (SAN)

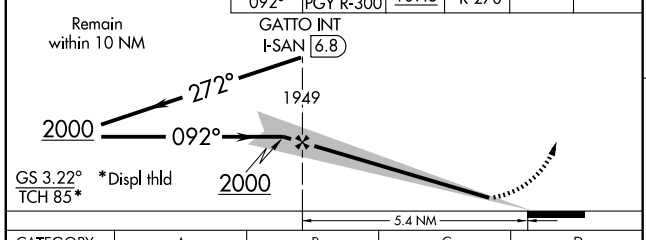
T A Inoperative table does not apply. MALSR (A5)

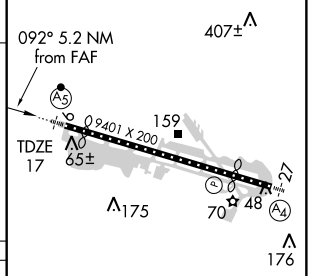
MISSED APPROACH: Climb to 3000 via heading 092° until intercepting PGY R-300, then continue climb to 5000 via PGY R-300 to PGY VORTAC. Then right turn via PGY R-270 to intercept OCN R-162 to SARGS Int and hold.

ATIS	SOCAL APP CON	LINDBERGH TOWER	GND CON	CLNC DEL
134.8	119.6 363.1 WEST 124.35 279.625 EAST	118.3 338.225	123.9	125.9



3000	5000	PGY	PGY	OCN	SARGS
092°	PGY R-300	109.8	R-270	R-162 115.3	△





CATEGORY	A	B	C	D
S-ILS 9	353/50 336 (400-1)			
S-LOC 9	540/50 526 (600-1)		540-1½ 526 (600-1½)	540-1¾ 526 (600-1¾)
CIRCLING	820-1 803 (900-1)	820-1¼ 803 (900-1¼)	820-2¼ 803 (900-2¼)	820-2½ 803 (900-2½)

TDZ/CL Rwys 9 and 27
HIRL Rwy 9-27

FAF to MAP 4.6 NM

Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

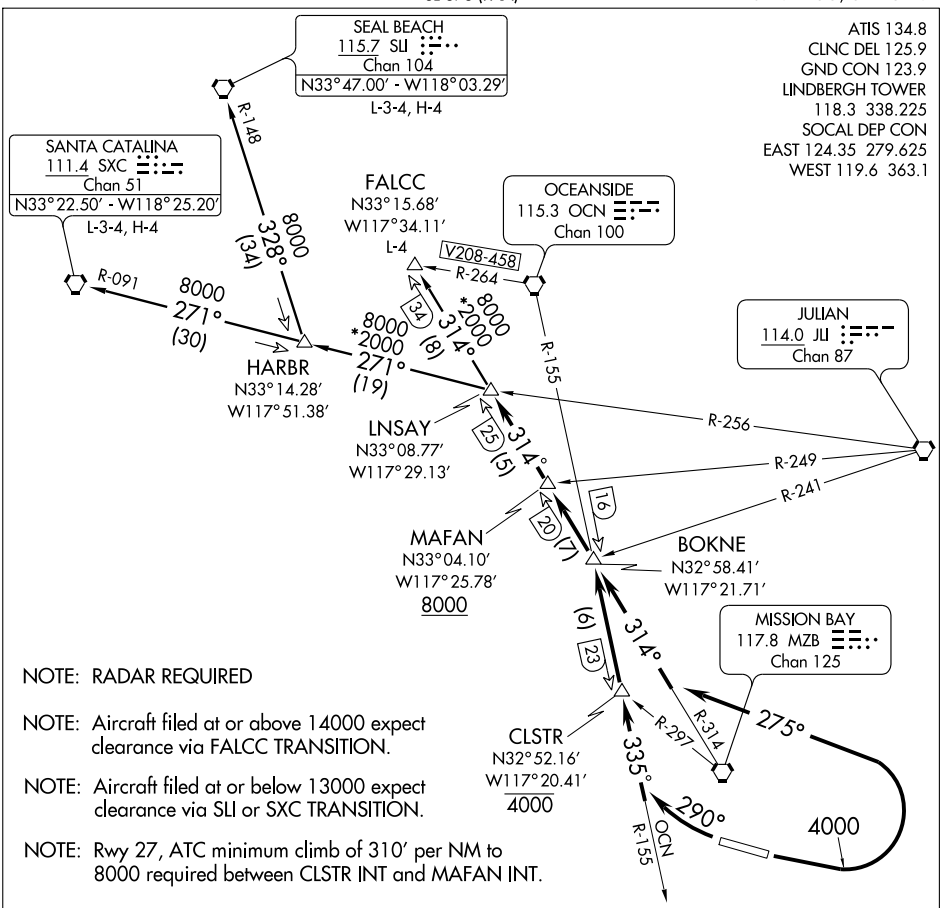
SW-3, 14 JAN 2010 to 11 FEB 2010

(LNSAY2.LNSAY) 09183

LNSAY TWO DEPARTURE

SL-373 (FAA)

SAN DIEGO INTL (SAN)
SAN DIEGO, CALIFORNIA



NOTE: RADAR REQUIRED

NOTE: Aircraft filed at or above 14000 expect clearance via FALCC TRANSITION.

NOTE: Aircraft filed at or below 13000 expect clearance via SLI or SXC TRANSITION.

NOTE: Rwy 27, ATC minimum climb of 310' per NM to 8000 required between CLSTR INT and MAFAN INT.

TAKE-OFF MINIMUMS

Rwy 9, 300-1 with minimum climb of 610' per NM to 1900.
Rwy 27, 300-1½ or standard with minimum climb of 317' per NM to 400.

TAKE-OFF NOTES

Rwy 9: Trees 792 feet from departure end of runway, 142 feet left of centerline, 60' AGL/99' MSL.
Antenna 740 feet from departure end of runway, 302 feet right of centerline, 62' AGL/82' MSL.
Antenna 1946 feet from departure end of runway, 969 feet left of centerline, 126' AGL/192' MSL.
Trees 1377 feet from departure end of runway, 285 feet left of centerline, 80' AGL/135' MSL.
Trees 4625 feet from departure end of runway, 1414 feet left of centerline, 250' AGL/385' MSL.

Rwy 27: Trees 1 mile from departure end of runway, 685 feet right of centerline, 220' AGL/253' MSL.
Trees 3118 feet from departure end of runway, 846 feet right of centerline, 120' AGL/149' MSL.
Flagpole 2511 feet from departure end of runway, 700 feet left of centerline, 90' AGL/116' MSL.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SW-3, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 9: Climb runway heading to 4000', then turn left via heading 275° to intercept and proceed via MZB R-314 to MAFAN INT. Thence. . . .

TAKE-OFF RUNWAY 27: Climbing right turn via heading 290° to intercept and proceed via OCN R-155 to CLSTR INT. Cross CLSTR INT at or below 4000', then via OCN R-155 and MZB R-314 to MAFAN INT. Thence. . . .

....cross MAFAN INT at or above 8000', then via MZB R-314 to LNSAY INT. Then via (transition) or (assigned route). Maintain assigned altitude.

FALCC TRANSITION (LNSAY2.FALCC): From over LNSAY INT via MZB R-314 to FALCC INT.

SANTA CATALINA TRANSITION (LNSAY2.SXC): From over LNSAY INT via SXC R-091 to SXC VORTAC.

SEAL BEACH TRANSITION (LNSAY2.SLI): From over LNSAY INT via SXC R-091 and SLI R-148 to SLI VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-UBR	APP CRS	Rwy Idg	7591
110.9	272°	TDZE	17
Chan 46		Apt Elev	17

LOC RWY 27

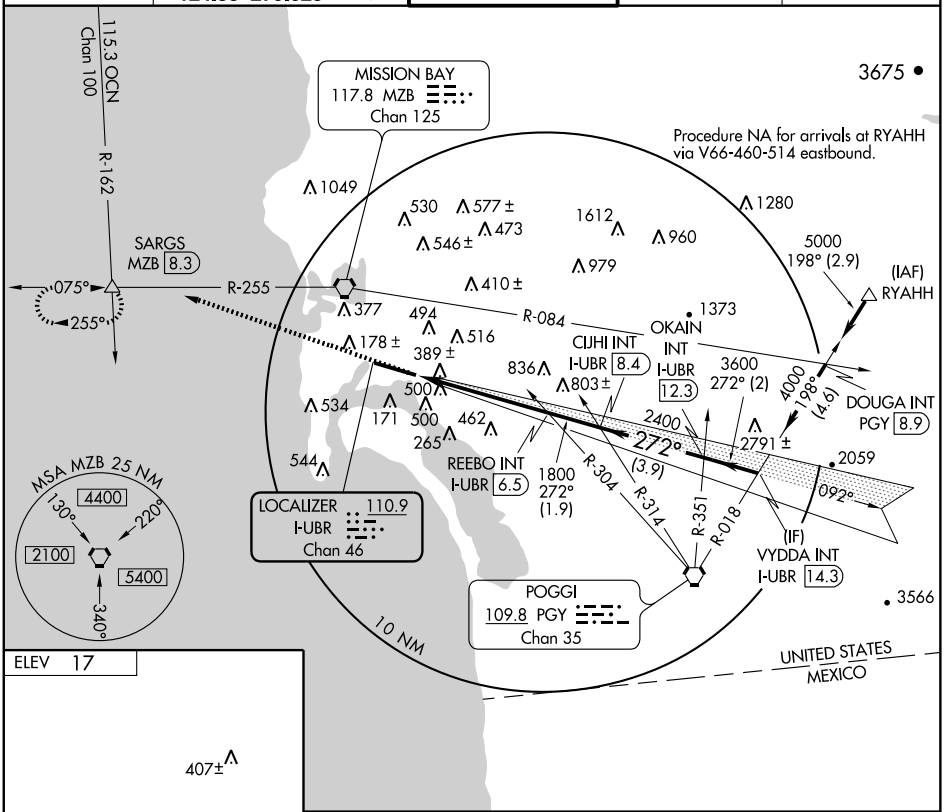
SAN DIEGO INTL (SAN)

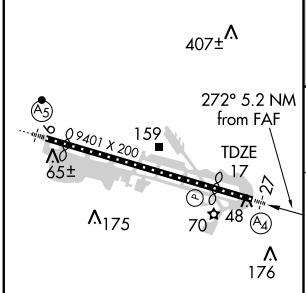
Inoperative table does not apply.
Visibility reduction by helicopters NA.

MALS

MISSED APPROACH: Climb to 2500 via heading 275° and MZB VORTAC R-255 to SARGS INT/8.3 DME and hold.

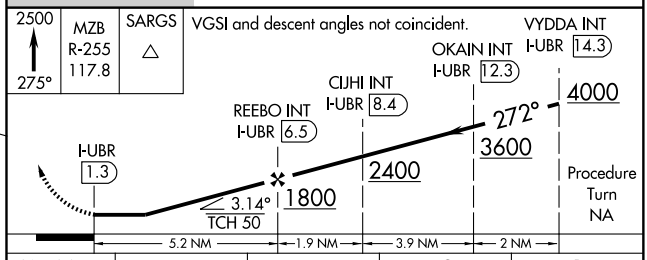
ATIS	SOCAL APP CON	LINDBERGH TOWER	GND CON	CLNC DEL
134.8	119.6 363.1 WEST 124.35 279.625 EAST	118.3 338.225	123.9	125.9





TDZ/CL Rwys 9 and 27
HIRL Rwy 9-27

FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44



CATEGORY	A	B	C	D
S-27	640/50 623 (700-1)		640-1¾ 623 (700-1¾)	640-2 623 (700-2)
CIRCLING	820-1 803 (900-1)	820-1¼ 803 (900-1¼)	820-2¼ 803 (900-2¼)	820-2½ 803 (900-2½)

SW-3, 14 JAN 2010 to 11 FEB 2010

IMPERIAL TRANSITION (IPL.LYNDI2)

NEEDLES TRANSITION (EED.LYNDI2)

PARKER TRANSITION (PKE.LYNDI2)

TWENTYNINE PALMS TRANSITION (TNP.LYNDI2)

From LUCKI WP via 236° track to cross LYNDI WP at/above 5000. Expect RNAV (GPS) Rwy 27 approach.

LOST COMMUNICATIONS: Join the San Diego RNAV (GPS) RWY 27 approach at LYNDI.

ATIS
134.8
SOCAL APP CON
124.35 279.625 (EAST)
119.6 363.1 (WEST)

TWENTYNINE PALMS
TNP

NEEDLES
EED

PARKER
PKE

15000 *7100 180° (37)

15000 *7200 209° (94)

15000 *6600 228° (61)

SHADI

14000 *6100 221° (11)

MOMAR

8 NM

13000 *7900 221° (14)

SALTN

12500 *8300 221° (4)

DSURT

12000 *7900 192° (22)

TRIXI
14000 270 KIAS
12000

10000 *8500 192° (11)

BARET
8000

8000 *7600 226° (8)

SLOYD
10000

GREED
14000 270 KIAS
12000

10000 *8300 246° (11)

12000 *7100 257° (12)

KUMBA

15000 *4700 258° (28)

IMPERIAL
IPL

8000 *7500 246° (8)

CUCCA
11000
10000

6100 *6100 227° (8)

LUCKI
6100

6100 *6100 254° (8)

MORAA
8000

*5000 236° (3)

LYNDI
5000

NOTE: RADAR required.

NOTE: Turbojet aircraft only.

NOTE: DME/DME/IRU or GPS required.

NOTE: RNAV 1

NOTE: IPL TRANSITION: For non-GPS equipped aircraft JLI must be operational.

NOTE: EED, PKE, and TNP TRANSITIONS: For non-GPS equipped aircraft JLI and PGY must be operational.

N

NOTE: Chart not to scale

(LYNDI.LYNDI2) 09351

LYNDI TWO ARRIVAL (RNAV)

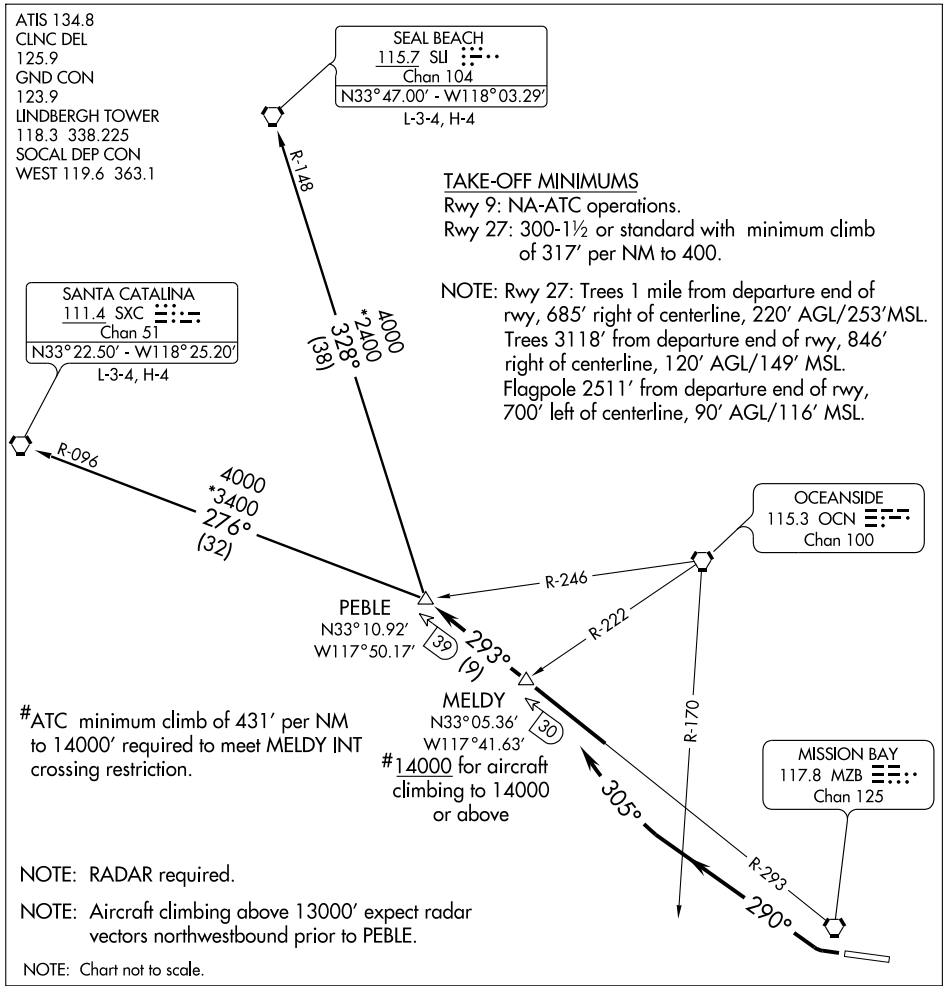
ST-373 (FAA)

SAN DIEGO INTL
SAN DIEGO, CALIFORNIA

PEBLE THREE DEPARTURE

SL-373 (FAA)

SAN DIEGO INTL (SAN)
SAN DIEGO, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 27: Climbing right turn via heading 290° until crossing OCN VORTAC R-170, then turn right via heading 305° to intercept and proceed via via MZB VORTAC R-293 to PEBLE INT. Aircraft climbing to 14000' or above, cross MELDY INT at or above 14000'. Then via (transition) or (assigned altitude). Maintain assigned altitude.

SANTA CATALINA TRANSITION (PEBLE3.SXC): From over PEBLE INT via SXC R-096 to SXC VORTAC.

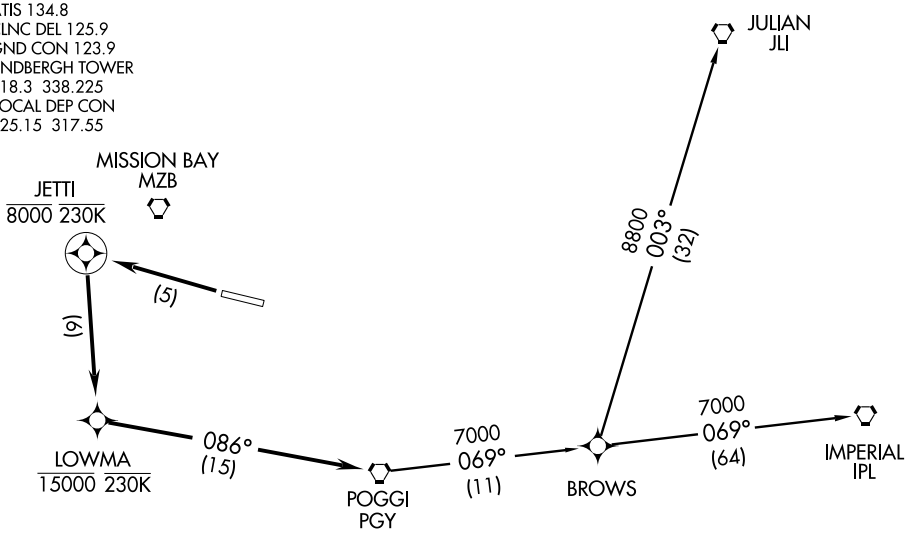
SEAL BEACH TRANSITION (PEBLE3.SLI): From over PEBLE INT via SLI R-148 to SLI VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010

POGGI TWO DEPARTURE (RNAV)

SAN DIEGO INTL (SAN)
SAN DIEGO, CALIFORNIA

ATIS 134.8
CLNC DEL 125.9
GND CON 123.9
LINDBERGH TOWER
118.3 338.225
SOCAL DEP CON
125.15 317.55



NOTE: DME/DME/IRU or GPS required.
NOTE: Imperial Transition: For Non-GPS equipped aircraft PGY, MZB, JLI VORTACs must be operational.
NOTE: Julian Transition: For Non-GPS equipped aircraft PGY VORTAC must be operational.
NOTE: RNAV 1.
NOTE: RADAR REQUIRED.
NOTE: Do not exceed 230 KIAS until LOWMA.

TAKE-OFF MINIMUMS

Rwy 9, NA-ATC.
Rwy 27, Standard with minimum ATC climb of 400' per NM to 520 and minimum obstacle climb of 317' per NM to 1600.

TAKE-OFF OBSTACLE NOTES

Rwy 27: Multiple trees, flag pole, light pole, and obstruction lights beginning at 287' from DER, 1985' left to 1577' right of centerline, up to 116' AGL/269' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 27: Climb direct to cross JETTI at or below 8000, then climbing left turn direct to cross LOWMA at or below 15000, then via 086° track to POGGI VORTAC, Thence....

....via (transition). Maintain 15000 or as assigned by ATC, expect filed altitude 10 minutes after departure.

IMPERIAL TRANSITION (POGGI2.IPL)

JULIAN TRANSITION (POGGI2.JLI)

APP CRS	Rwy Idg	8701
092°	TDZE	17
	Apt Elev	17

RNAV (GPS) RWY 9

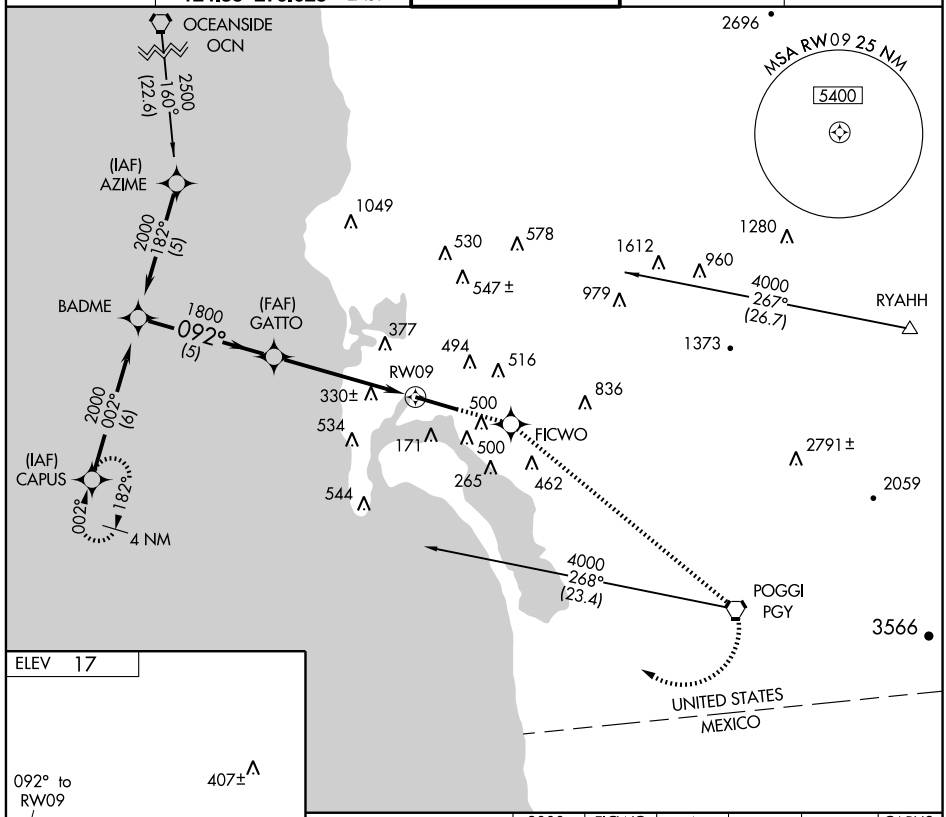
SAN DIEGO INTL (SAN)

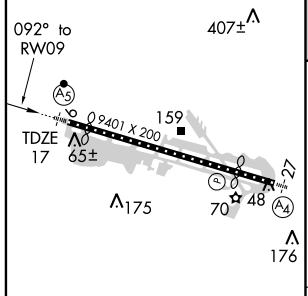
T Inoperative table does not apply to Cats A/B.
A DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA.

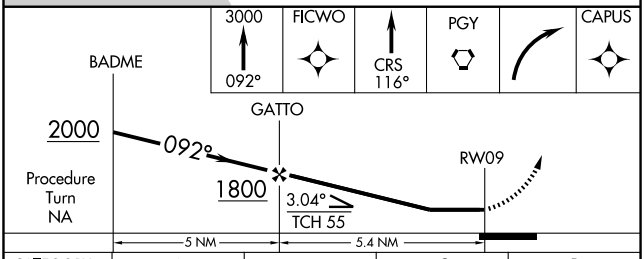
MALSR

MISSED APPROACH: Climb to 3000 via 092° course to FICWO WP then via 116°course to PGY VORTAC, then right turn direct CAPUS WP and hold.

ATIS	SOCAL APP CON	LINDBERGH TOWER	GND CON	CLNC DEL
134.8	119.6 363.1 WEST 124.35 279.625 EAST	118.3 338.225	123.9	125.9







CATEGORY	A	B	C	D
LNAV MDA	600/50 583 (600-1)			600/60 583 (600-1¼)
CIRCLING	820-1 803 (900-1)	820-1¼ 803 (900-1¼)	820-2¼ 803 (900-2¼)	820-2½ 803 (900-2½)

TDZ/CL Rwys 9 and 27
HIRL Rwy 9-27

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	7591
272°	TDZE	17
	Apt Elev	17

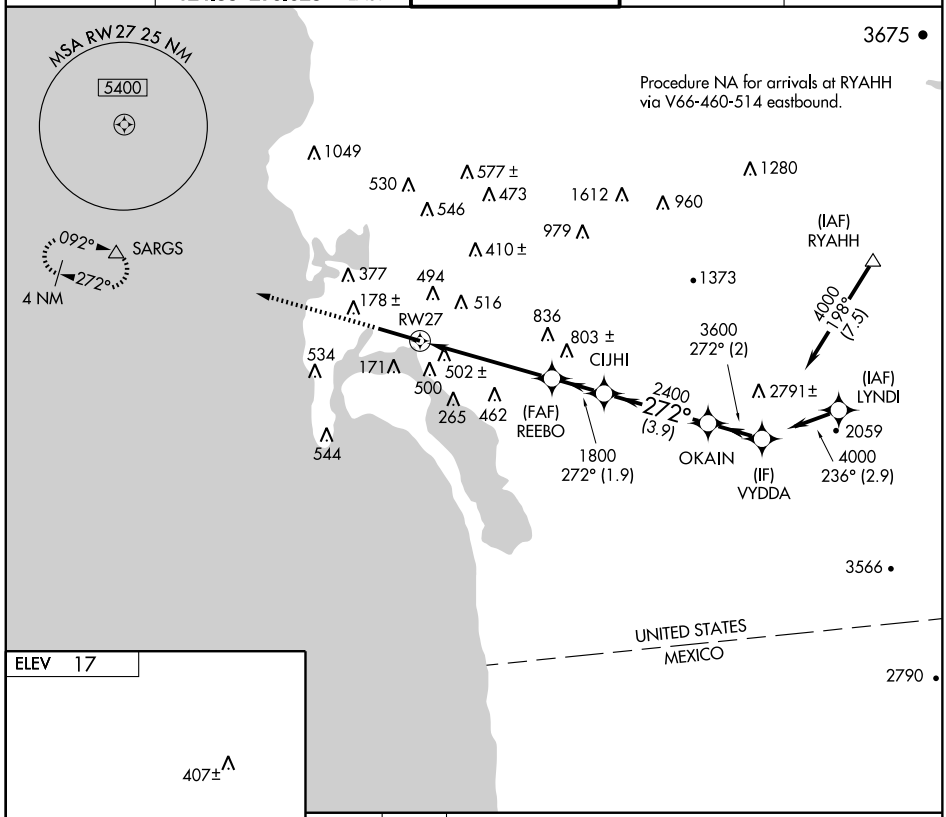
RNAV (GPS) RWY 27
SAN DIEGO INTL (SAN)

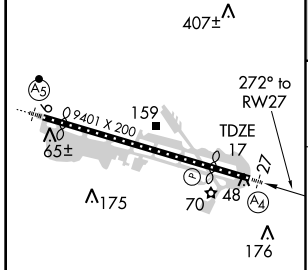
T Inoperative table does not apply.
NA Visibility reduction by helicopters NA.
DME/DME RNP-0.3 NA.

MALS

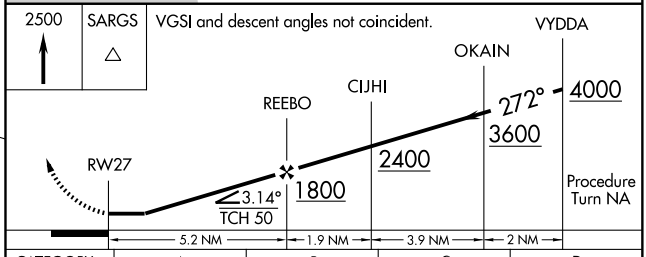
MISSED APPROACH: Climb to 2500 direct SARGS and hold.

ATIS	SOCAL APP CON	LINDBERGH TOWER	GND CON	CLNC DEL
134.8	119.6 363.1 WEST 124.35 279.625 EAST	118.3 338.225	123.9	125.9





TDZ/CL Rwys 9 and 27
HIRL Rwy 9-27



CATEGORY	A	B	C	D
LNAV MDA	760/50 743 (800-1)	760/60 743 (800-1¼)	760-2¼ 743 (800-2¼)	760-2½ 743 (800-2½)
CIRCLING	820-1 803 (900-1)	820-1¼ 803 (900-1¼)	820-2¼ 803 (900-2¼)	820-2½ 803 (900-2½)

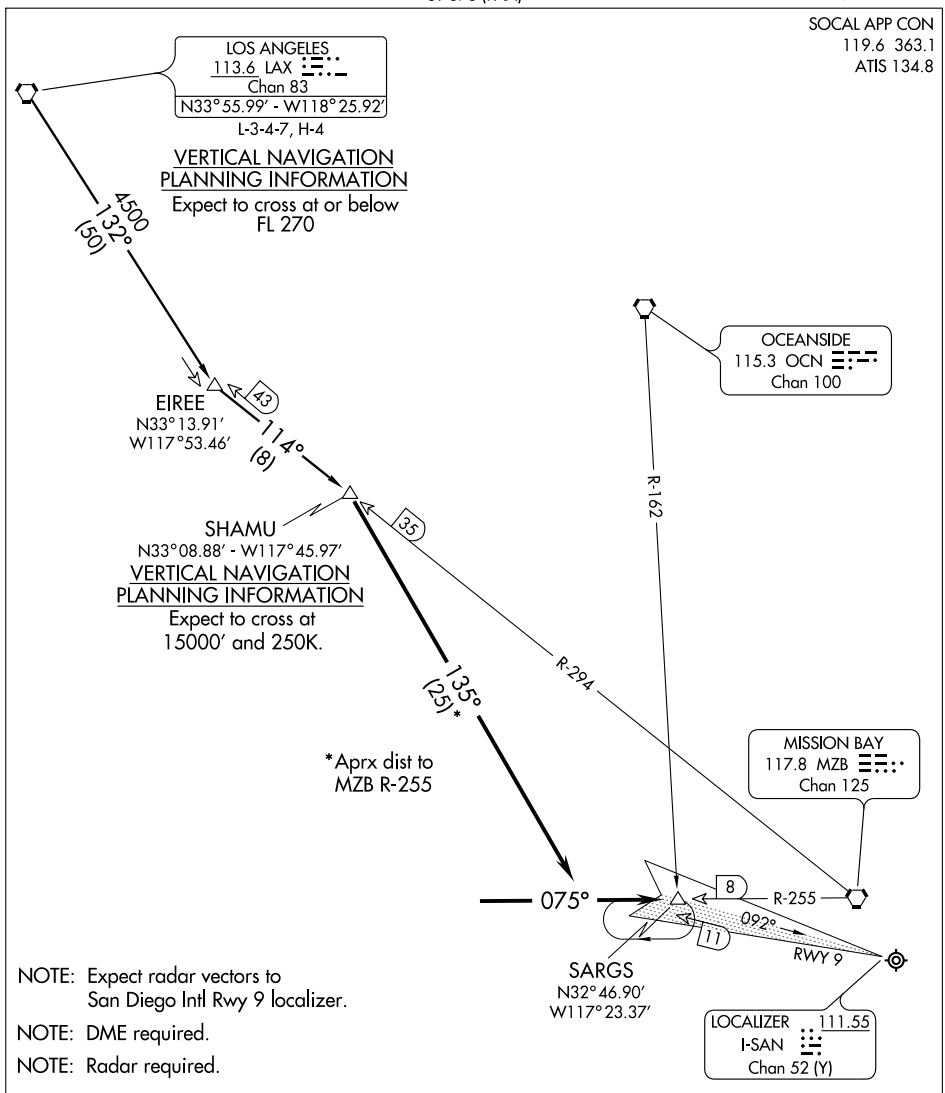
SW-3, 14 JAN 2010 to 11 FEB 2010

(SHAMU.SHAMU1) 09127

SHAMU ONE ARRIVAL

ST-373 (FAA)

SAN DIEGO INTL
SAN DIEGO, CALIFORNIA



NOTE: Expect radar vectors to San Diego Intl Rwy 9 localizer.

NOTE: DME required.

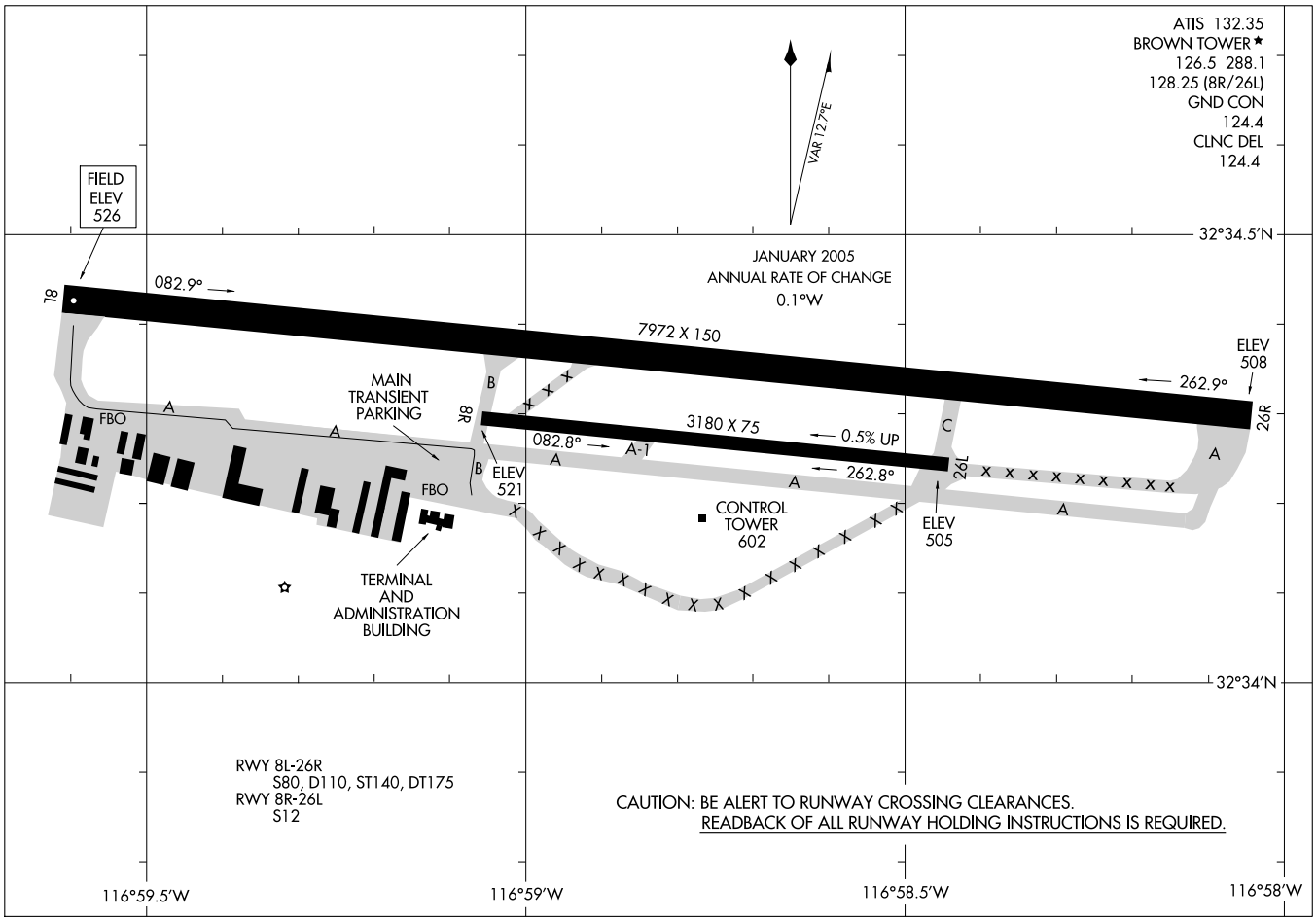
NOTE: Radar required.

NOTE: Chart not to scale.

LOS ANGELES TRANSITION (LAX.SHAMU1): From over LAX VORTAC via LAX R-132 and MZB R-294 to SHAMU FIX. Thence....

....From over SHAMU FIX via heading 135° to intercept MZB R-255 then via MZB R-255 to SARGS INT. Expect radar vectors to SAN Rwy 9 localizer.

SW-3, 14 JAN 2010 to 11 FEB 2010



AIRPORT DIAGRAM

AL-5814 (FAA)

SAN DIEGO/ BROWN FIELD MUNI (SDM)
SAN DIEGO, CALIFORNIA

APP CRS	Rwy Idg	7972
082°	TDZE	526
	Apt Elev	526

RNAV (GPS) RWY 8L

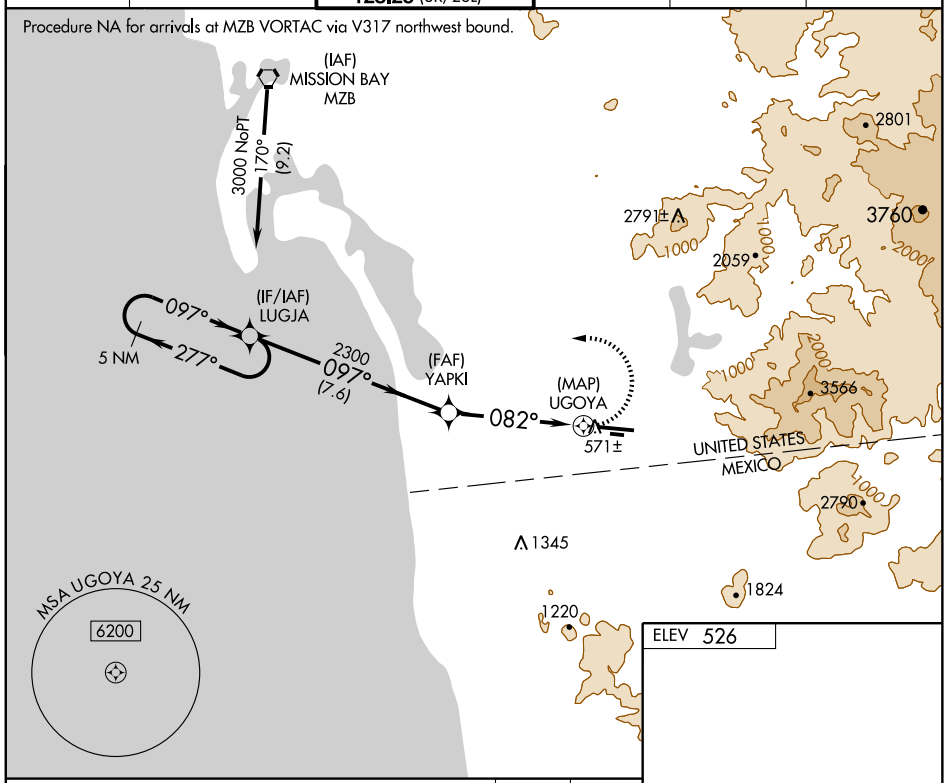
SAN DIEGO/ BROWN FIELD MUNI (SDM)

DME/DME RNP -0.3 NA.
Circling NA south of Rwy 8R-26L.
If local altimeter setting not received, use San Diego Intl altimeter setting and increase all MDAs 120 feet.
VDP NA when using San Diego Intl altimeter setting.

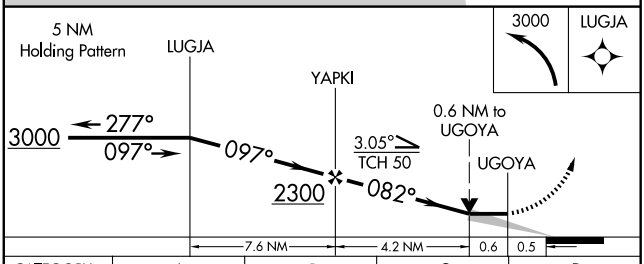
MISSED APPROACH: Climbing left turn to 3000 direct LUGJA and hold.

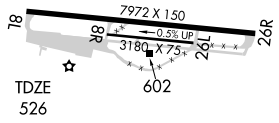
ATIS	SOCAL APP CON	BROWN TOWER ★	GND CON	CLNC DEL	UNICOM
132.35	124.35 279.625	126.5 (CTAF) 288.1 128.25 (8R/26L)	124.4	124.4	122.95

Procedure NA for arrivals at MZB VORTAC via V317 northwest bound.



ELEV 526





CATEGORY	A	B	C	D
LNAV MDA	940-1 414 (500-1)		940-1¼ 414 (500-1¼)	
CIRCLING	980-1 454 (500-1)	1020-1 494 (500-1)	1020-1½ 494 (500-1½)	1080-2 554 (600-2)

MIRL Rwy 8L-26R

SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC PGY 109.8 Chan 35	APP CRS 156°	Rwy Idg N/A TDZE N/A Apt Elev 524

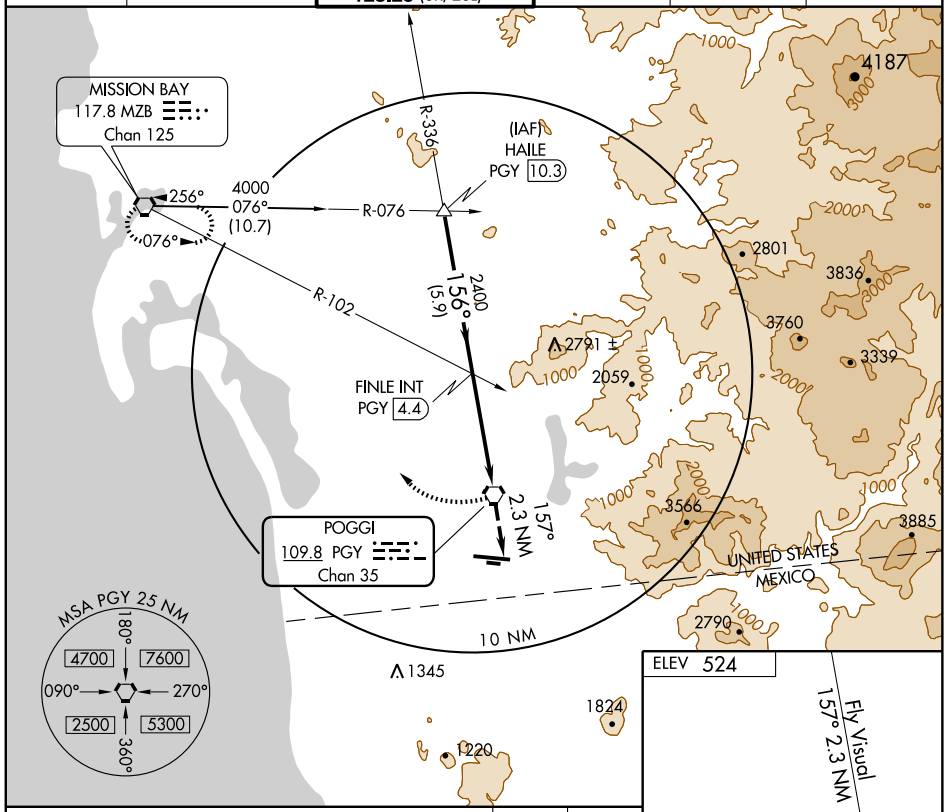
VOR or GPS-A

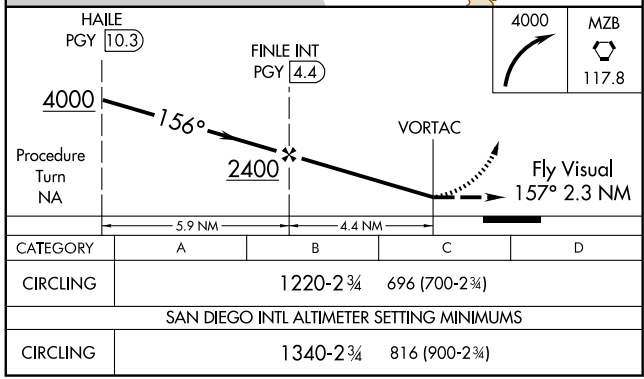
SAN DIEGO/ BROWN FIELD MUNI (SDM)

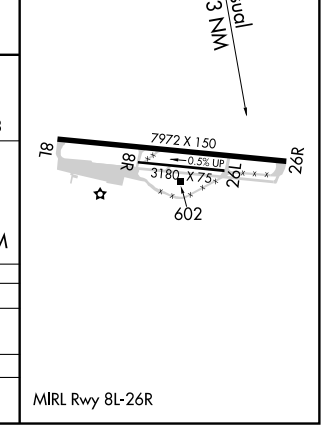
When control tower closed, use San Diego Intl altimeter setting minimums.
Circling not authorized south of runway 8R-26L.

MISSED APPROACH: Climbing right turn to 4000 direct MZB VORTAC and hold.

ATIS	SOCAL APP CON	BROWN TOWER ★	GND CON	CLNC DEL	UNICOM
132.35	124.35 279.625	126.5 (CTAF) 288.1 128.25 (8R/26L)	124.4	124.4	122.95







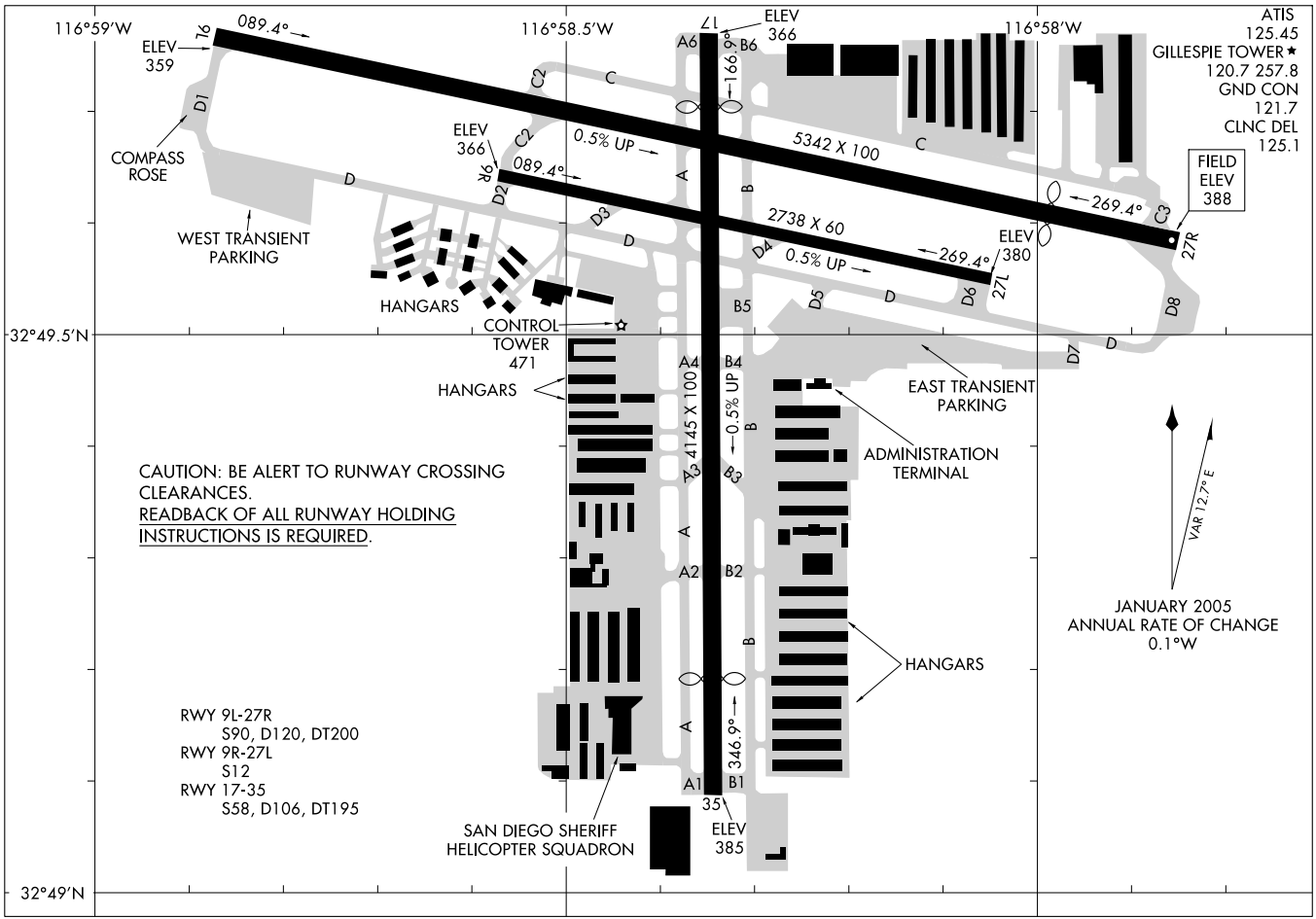
CATEGORY	A	B	C	D
CIRCLING	1220-2¾ 696 (700-2¾)			

SAN DIEGO INTL ALTIMETER SETTING MINIMUMS

CIRCLING	1340-2¾ 816 (900-2¾)			

MIRL Rwy 8L-26R

SW-3, 14 JAN 2010 to 11 FEB 2010


AIRPORT DIAGRAM
AL-5402 (FAA)
SAN DIEGO/GILLESPIE FIELD (SEE)
SAN DIEGO (EL CAJON), CALIFORNIA
ATIS
125.45
GILLESPIE TOWER ★
120.7 257.8
GND CON
121.7
CLNC DEL
125.1
116°59'W
116°58.5'W
116°58'W
32°49.5'N
32°49'N
ELEV 359
089.4°
16
ELEV 366
17
166.9°
ELEV 366
09R
089.4°
0.5% UP
5342 X 100
269.4°
FIELD ELEV 388
27R
ELEV 380
269.4°
27L
2738 X 60
0.5% UP
COMPASS ROSE
WEST TRANSIENT PARKING
HANGARS
CONTROL TOWER 471
HANGARS
EAST TRANSIENT PARKING
ADMINISTRATION TERMINAL
4145 X 100
0.5% UP
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
VAR 12.7° E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°W
HANGARS
RWY 9L-27R
S90, D120, DT200
RWY 9R-27L
S12
RWY 17-35
S58, D106, DT195
346.9°
35
ELEV 385
SAN DIEGO SHERIFF HELICOPTER SQUADRON

LOC I-SEE	APP CRS	Rwy Idg	N/A
110.5	269°	TDZE	N/A
		Apt Elev	387

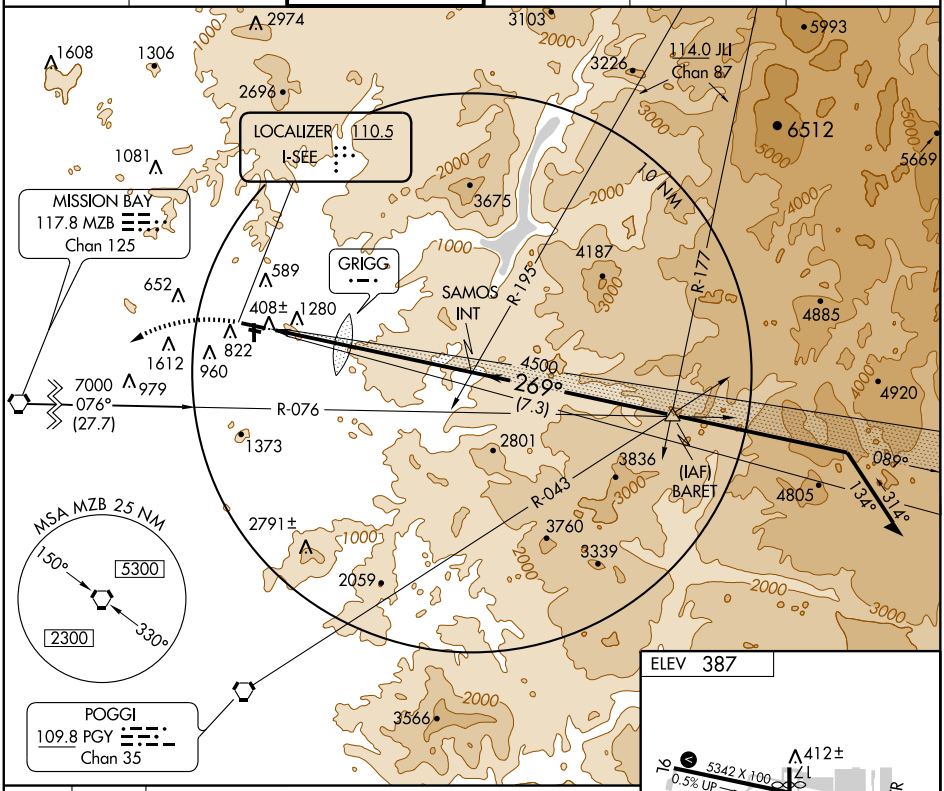
LOC-D

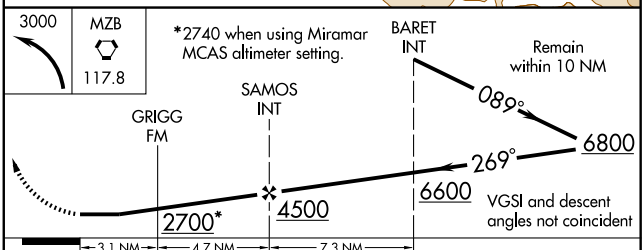
SAN DIEGO/ GILLESPIE FIELD (SEE)

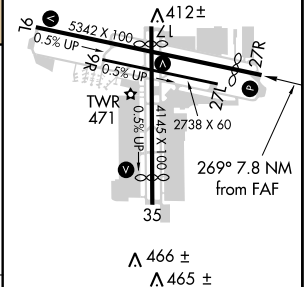
Circling not authorized NE of Rwys 17 and 27R.
When control tower closed use Miramar MCAS, CA altimeter setting and increase all MDAs 40 feet.

MISSED APPROACH: Climbing left turn to 3000 direct to MZB VORTAC.

ATIS	SOCAL APP CON	GILLESPIE TOWER★	GND CON	CLNC DEL	UNICOM
125.45	124.35 279.625	120.7 (CTAF) L 257.8	121.7	125.1	123.05







CATEGORY	A	B	C	D
CIRCLING	2700-1¼ 2313 (2400-1¼)	2700-1½ 2313 (2400-1½)	2700-3 2313 (2400-3)	

MIRL Rwys 9L-27R and 17-35 L

GRIGG FM MINIMUMS

CIRCLING	1580-1¼ 1193 (1200-1¼)	1580-1½ 1193 (1200-1½)	1580-3 1193 (1200-3)	1920-3 1533 (1600-3)

FAF to MAP 7.8 NM

Knots	60	90	120	150	180
Min:Sec	7:48	5:12	3:54	3:07	2:36

SW-3, 14 JAN 2010 to 11 FEB 2010

SAN DIEGO (EL CAJON), CALIFORNIA AL-5402 (FAA)

APP CRS	Rwy Idg	3695
152°	TDZE	379
	Apt Elev	388

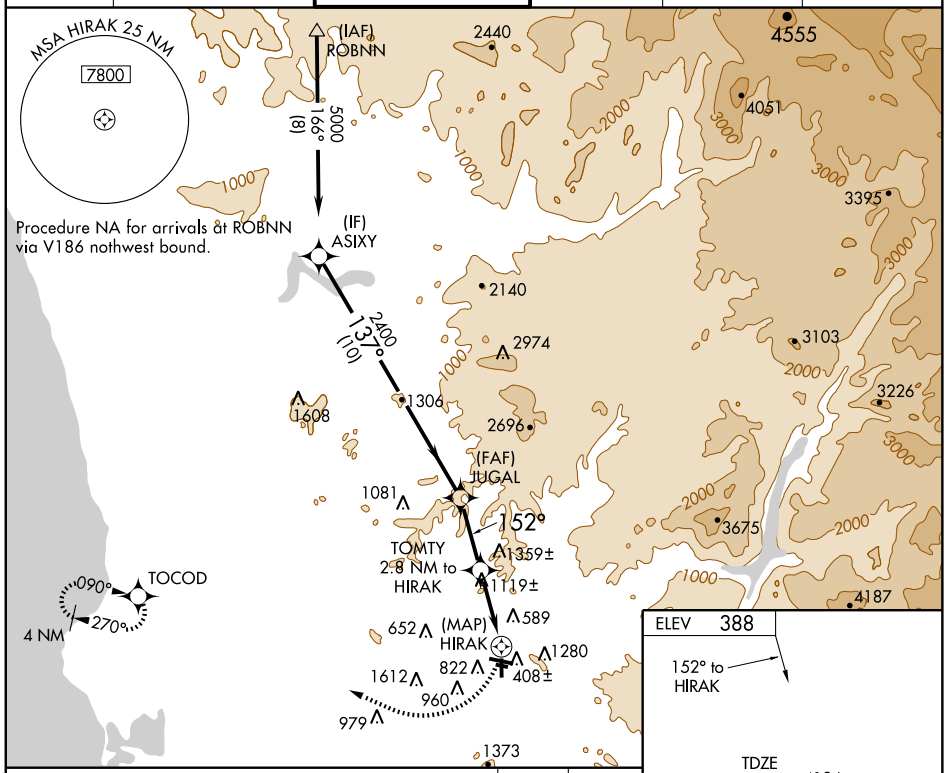
RNAV (GPS) RWY 17

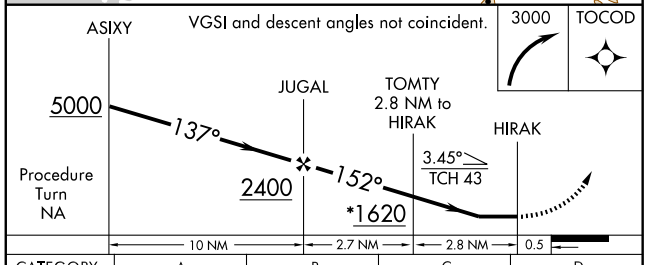
SAN DIEGO/GILLESPIE FIELD (SEE)

DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use Miramar MCAS altimeter setting and increase all MDA 40 feet.
*1660 when using Miramar MCAS altimeter setting.
LNAV MDA Cat D minima NA when using Miramar MCAS altimeter setting.

MISSED APPROACH: Climbing right turn to 3000 direct TOCOD and hold.

ATIS	SOCAL APP CON	GILLESPIE TOWER*	GND CON	CLNC DEL	UNICOM
125.45	124.35 279.625	120.7 (CTAF) L 257.8	121.7	125.1	123.05

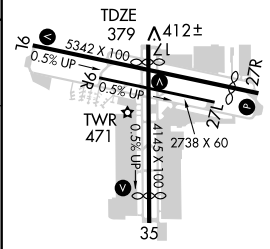




CATEGORY	A	B	C	D
LNAV MDA	1440-1¼ 1061 (1100-1¼)	1440-1½ 1061 (1100-1½)	1440-3 1061 (1100-3)	
CIRCLING	1440-1¼ 1052 (1100-1¼)	1440-1½ 1052 (1100-1½)	1440-3 1052 (1100-3)	1520-3 1132 (1200-3)

ELEV 388

152° to HIRAK



466 ±
465 ±

MIRL Rwys 9L-27R and 17-35 L

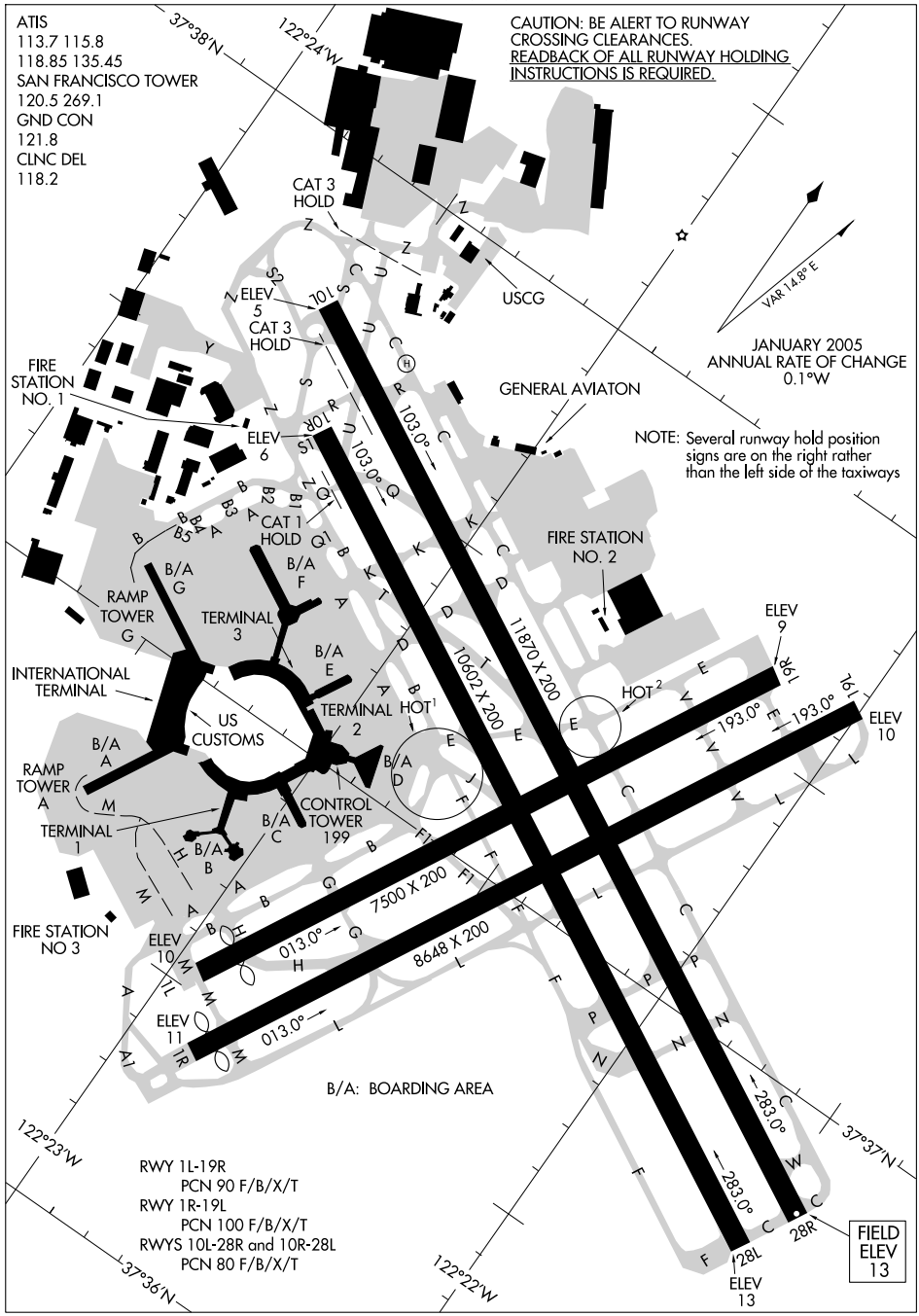
SW-3, 14 JAN 2010 to 11 FEB 2010

09295

AIRPORT DIAGRAM

AL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA



SW-2, 14 JAN 2010 to 11 FEB 2010

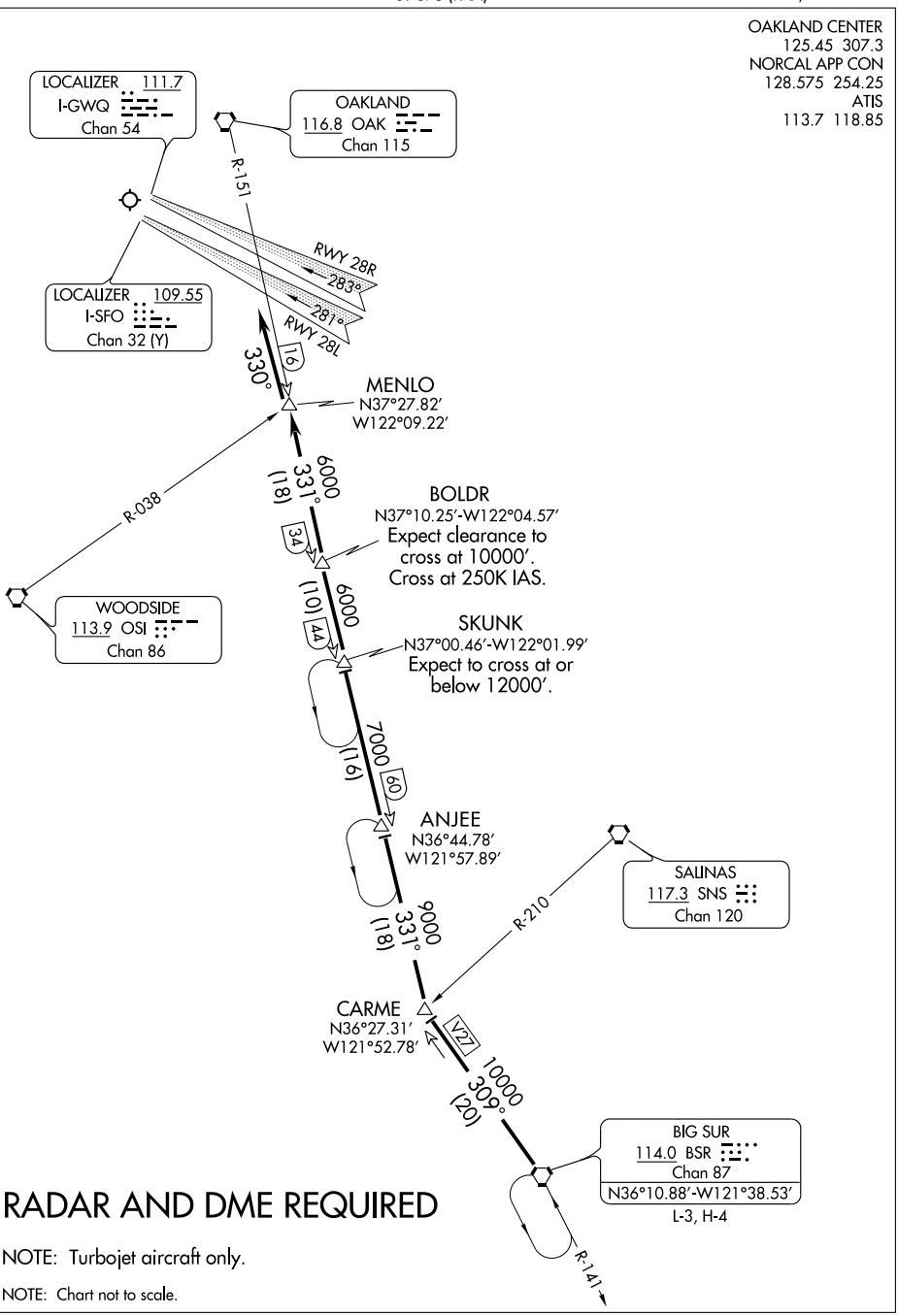
(BSR.BSR2) 07298

BIG SUR TWO ARRIVAL

ST-375 (FAA)

SAN FRANCISCO INTL
SAN FRANCISCO, CALIFORNIA

OAKLAND CENTER
125.45 307.3
NORCAL APP CON
128.575 254.25
ATIS
113.7 118.85



RADAR AND DME REQUIRED

NOTE: Turbojet aircraft only.

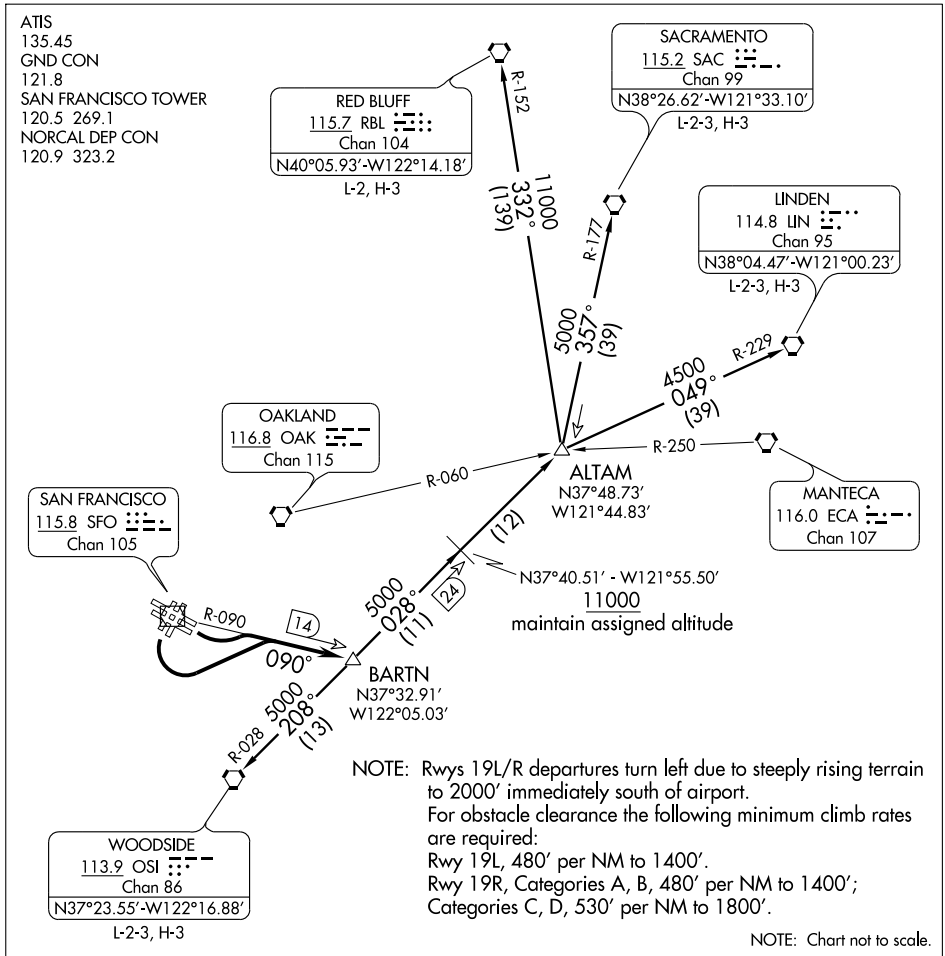
NOTE: Chart not to scale.

SW-2, 14 JAN 2010 to 11 FEB 2010

DUMBARTON SIX DEPARTURE

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 10L/R and 19L/R: Turn left and climb via SFO R-090 to BARTN INT, thence via (transition) or (assigned route). Expect further clearance to filed altitude 10 minutes after departure.

LINDEN TRANSITION (DUMB6.LIN): From over BARTN INT via OSI R-028 and LIN R-229 to LIN VORTAC.

RED BLUFF TRANSITION (DUMB6.RBL): From over BARTN INT via OSI R-028 and RBL R-152 to RBL VORTAC.

SACRAMENTO TRANSITION (DUMB6.SAC): From over BARTN INT via OSI R-028 and SAC R-177 to SAC VORTAC.

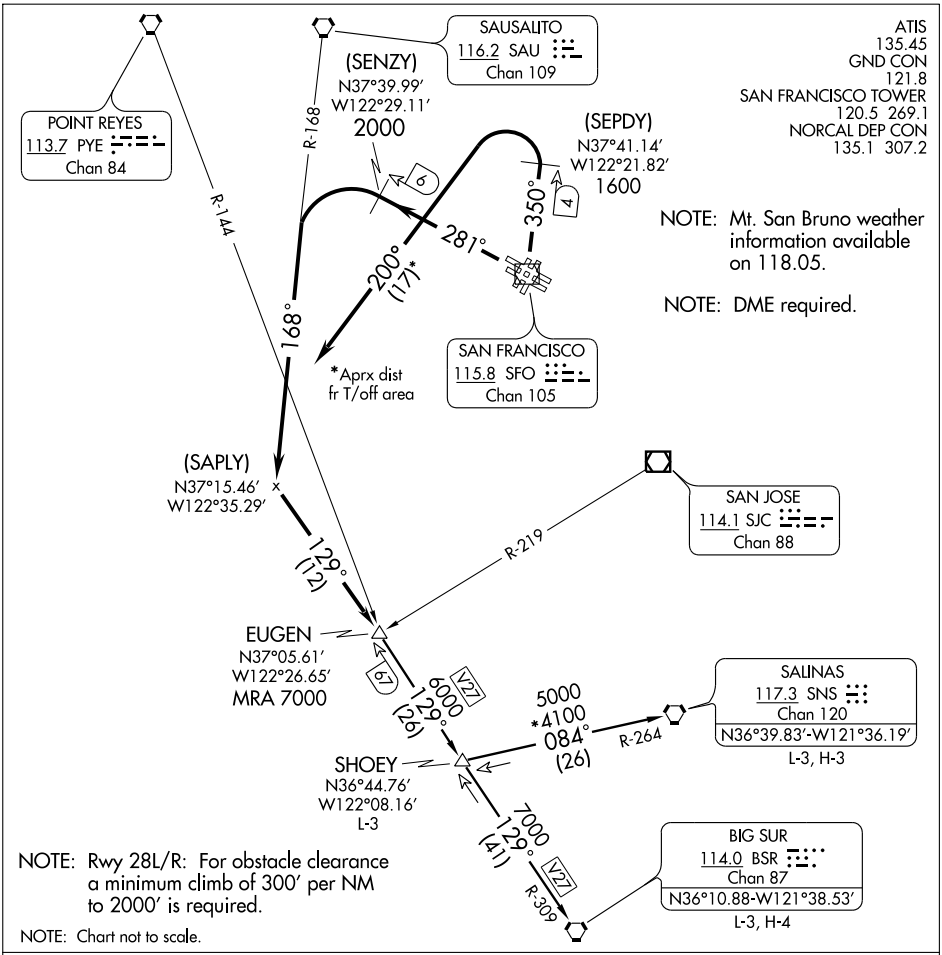
WOODSIDE TRANSITION (DUMB6.OSI): From over BARTN INT via OSI R-028 to OSI VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

EUGEN FIVE DEPARTURE

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 1L/R: Climb via SFO R-350, after passing the 4 DME fix and after reaching 1600', turn left heading 200° to intercept and proceed via SAU R-168 and BSR R-309 to EUGEN INT. Thence....

TAKE-OFF RUNWAYS 28L/R: Climb via SFO R-281, after passing 6 DME fix and reaching 2000', turn left to intercept and proceed via SAU R-168 and BSR R-309 to EUGEN INT. Thence....

....via (transition) or (assigned route). Expect further clearance to filed alittude 10 minutes after departure.

BIG SUR TRANSITION (EUGEN5.BSR)

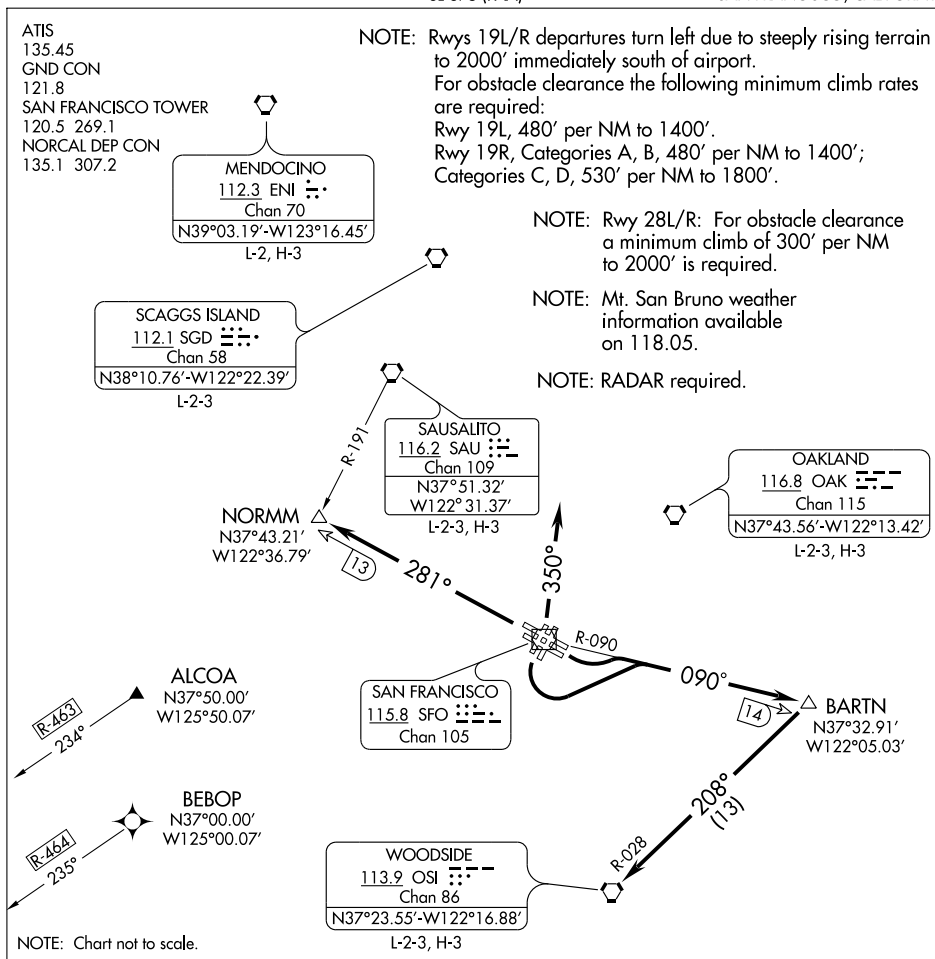
SALINAS TRANSITION (EUGEN5.SNS)

SHOEY TRANSITION (EUGEN5.SHOEY)

SW-2, 14 JAN 2010 to 11 FEB 2010

GAP THREE DEPARTURE

SL-375 (FAA)



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 1L/R: Climb via heading 350° (or as assigned) for vector to assigned route/fix. Expect further clearance to filed altitude 10 minutes after departure.

TAKE-OFF RUNWAYS 10L/R and 19L/R: Turn left and climb via SFO R-090 and OSI R-028 to OSI VORTAC; expect vector to assigned route/fix after OSI VORTAC. Expect further clearance to filed altitude 10 minutes after departure.

TAKE-OFF RUNWAYS 28L/R: Climb via SFO VOR/DME R-281 to NORMM INT; expect vector to assigned route/fix after NORMM INT. Expect further clearance to filed altitude 10 minutes after departure.

LOST COMMUNICATIONS:
ALL RUNWAYS: If not in contact with departure control after reaching 3000', continue climb to assigned altitude and proceed direct to assigned route/fix.

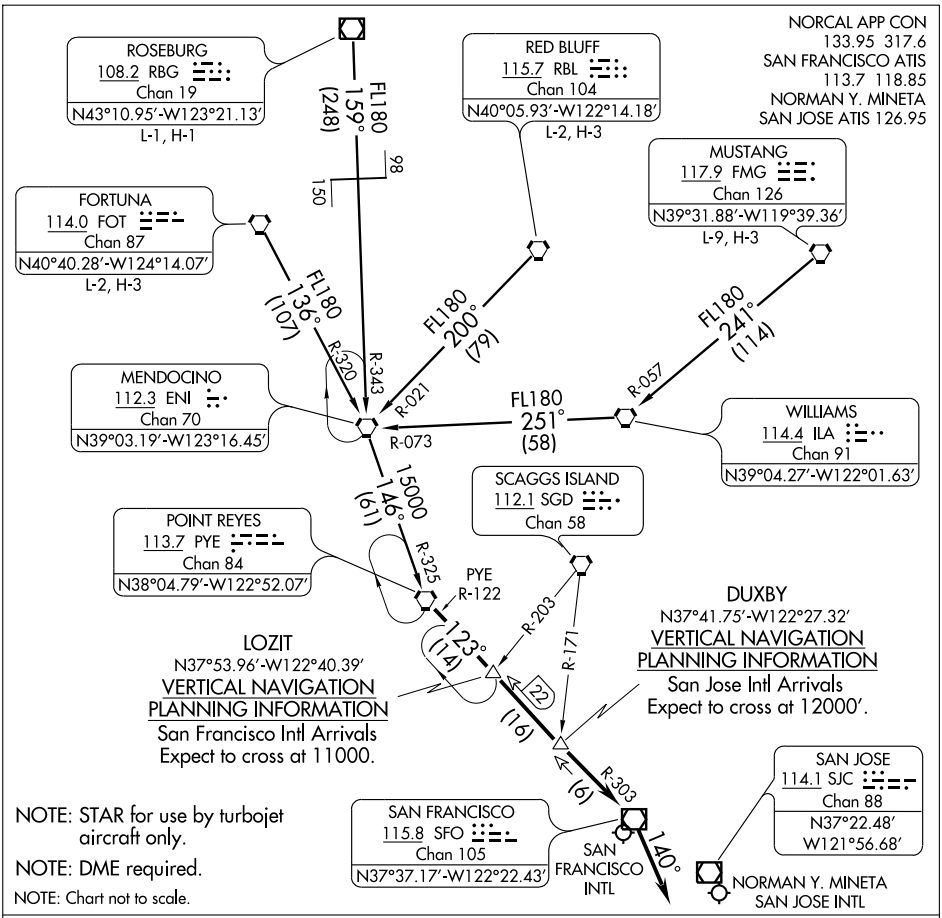
SW-2, 14 JAN 2010 to 11 FEB 2010

(PYE.GOLDN5) 09351

GOLDEN GATE FIVE ARRIVAL

ST-375 (FAA)

SAN FRANCISCO, CALIFORNIA



FORTUNA TRANSITION (FOT.GOLDN5): From over FOT VORTAC via FOT R-136 and ENI R-320 to ENI VORTAC, then via ENI R-146 and PYE R-325 to PYE VORTAC. Thence....

MUSTANG TRANSITION (FMG.GOLDN5): From over FMG VORTAC via FMG R-241 and ILA R-057 to ILA VORTAC, then via ILA R-251 and ENI R-073 to ENI VORTAC, then via ENI R-146 and PYE R-325 to PYE VORTAC. Thence....

RED BLUFF TRANSITION (RBL.GOLDN5): From over RBL VORTAC via RBL R-200 and ENI R-021 to ENI VORTAC, then via ENI R-146 and PYE R-325 to PYE VORTAC. Thence....

ROSEBURG TRANSITION (RBG.GOLDN5): From over RBG VOR/DME via RBG R-159 and ENI R-343 to ENI VORTAC, then via ENI R-146 and PYE R-325 to PYE VORTAC. Thence....

....From over PYE VORTAC via SFO R-303 to SFO VOR/DME, then via heading 140° (MEA 6000). Expect vectors to final approach course.

LOST COMMUNICATIONS: San Jose Intl: After SFO VOR/DME proceed direct SJC VOR/DME. (MEA 6000).

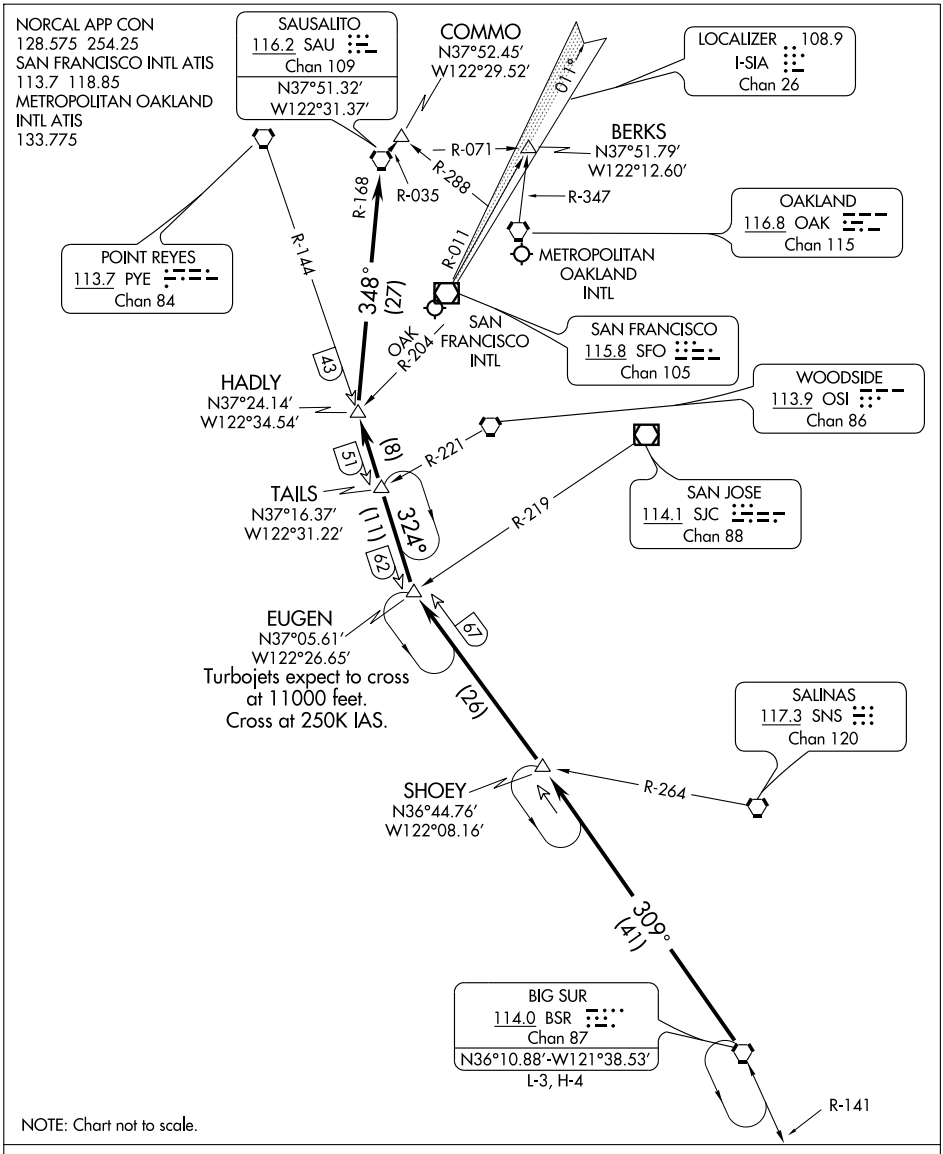
SW-2, 14 JAN 2010 to 11 FEB 2010

(BSR.HADLY2) 09351

HADLY TWO ARRIVAL

ST-375 (FAA)

SAN FRANCISCO, CALIFORNIA



From over BSR VORTAC via BSR R-309 to EUGEN INT, then via PYE R-144 to HADLY INT, then via direct SAU VORTAC. Expect vectors to final approach course. Expect clearance to cross EUGEN INT at 11000′ and at 250K IAS.

LOST COMMUNICATIONS

San Francisco Intl: Depart SAU VORTAC via SAU R-071 to BERKS INT.

Metropolitan Oakland Intl: Depart SAU VORTAC via SAU R-035 to COMMO INT.

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN FRANCISCO, CALIFORNIA — AL-375 (FAA)

LOC/DME I-SIA	APP CRS	Rwy 19L ldg	TDZE	Apt Elev	Rwy 19R ldg	TDZE	Apt Elev
108.9 Chan 26	191°	8648	11	13	7500	10	13

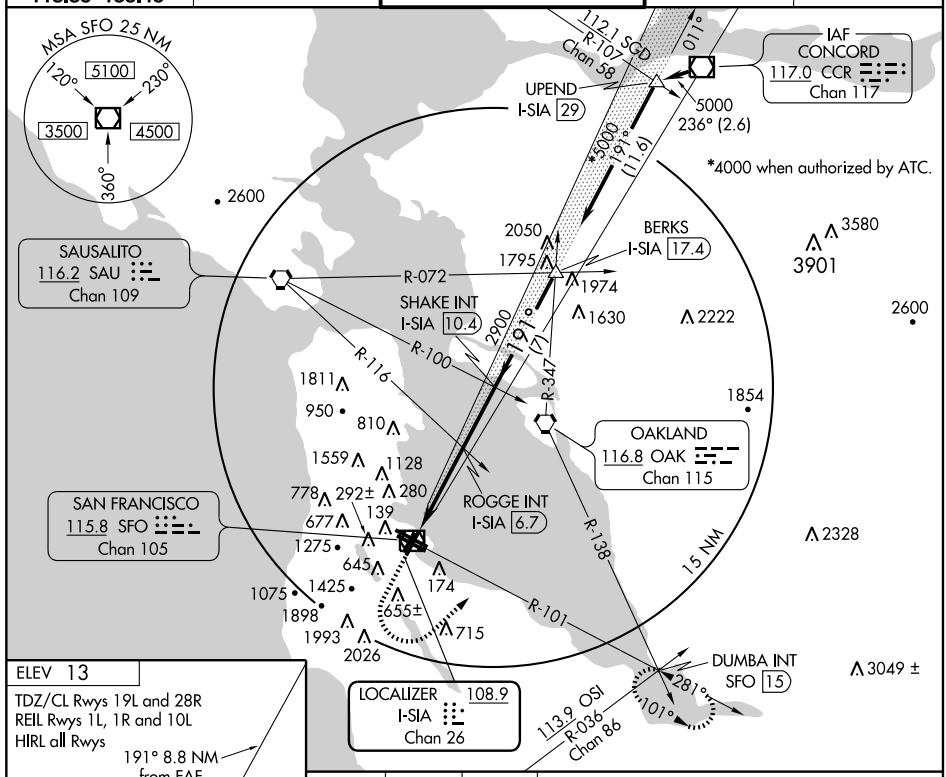
ILS or LOC RWY 19L
SAN FRANCISCO INTL (SFO)

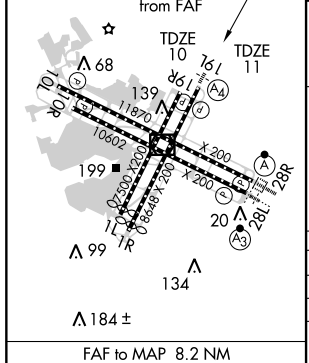
Inoperative table does not apply.

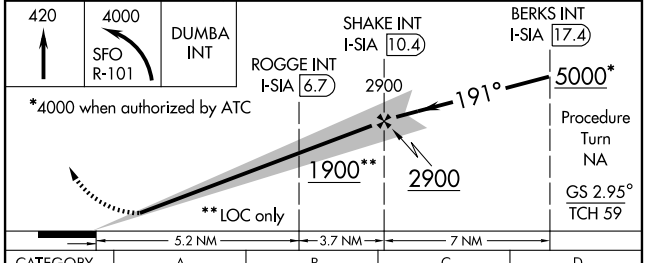
SSALS Rwy 19L

MISSED APPROACH: Climb to 420 then climbing left turn to 4000 via SFO VOR/DME R-101 to DUMBA Int and hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2







CATEGORY	A	B	C	D
S-ILS 19L	211/40	200 (200-¾)		
S-LOC 19L	340/50	329 (400-1)		
SIDESTEP RWY 19R	340/50	330 (400-1)	340-1½ 330 (400-1½)	340-2 330 (400-2)
CIRCLING	760-1¼ 747 (800-1¼)	940-1½ 927 (1000-1½)	1040-3 1027 (1100-3)	1160-3 1147 (1200-3)

FAF to MAP 8.2 NM

Knots	60	90	120	150	180
Min:Sec	8:12	5:28	4:06	3:17	2:44

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN FRANCISCO, CALIFORNIA — AL-375 (FAA)

LOC/DME I-SFO	APP CRS	Rwy 28L Idg	TDZE	Apt Elev	Rwy 28R Idg	TDZE	Apt Elev
109.55 Chan 32 (Y)	281°	10602	13	13	11870	13	13

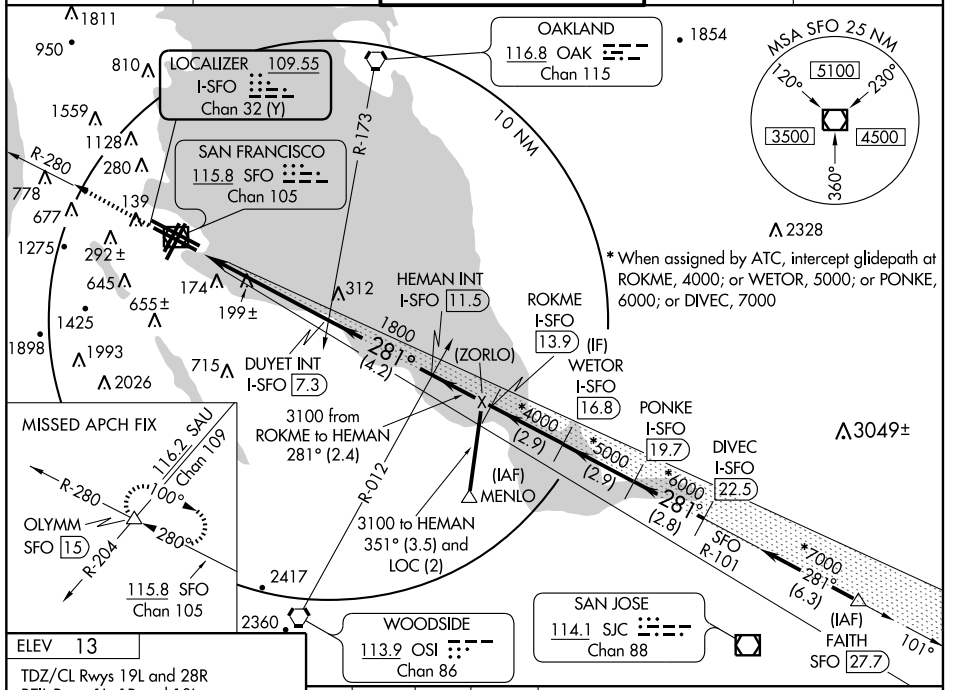
ILS or LOC RWY 28L
SAN FRANCISCO INTL (SFO)

Inoperative table does not apply to sidestep 28R Cat A and B. Disregard IM and MM indications. #RVR 1800 authorized with the use of FD or AP or HUD to DA.

SSALR Rwy 28L (A2) ALSF-2 Rwy 28R (A)

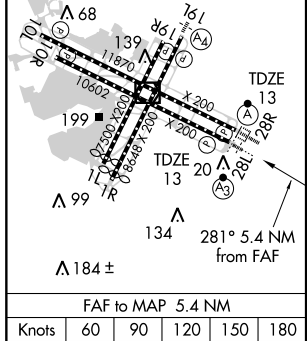
MISSED APPROACH: Climb to 600 then climbing right turn to 3000 via heading 285° and SFO VOR/DME R-280 to OLYMM INT 15 DME and hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2

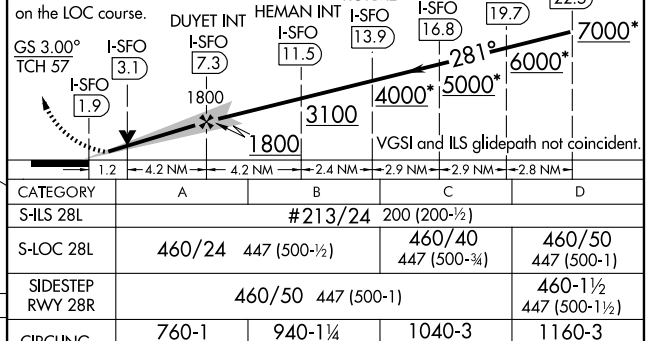


ELEV 13

TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L
HIRL all Rwys



FAF to MAP 5.4 NM					
Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48



CATEGORY	A	B	C	D
S-ILS 28L	#213/24 200 (200-½)			
S-LOC 28L	460/24 447 (500-½)		460/40 447 (500-¾)	460/50 447 (500-1)
SIDESTEP RWY 28R	460/50 447 (500-1)			460-1½ 447 (500-1½)
CIRCLING	760-1 747 (800-1)	940-1¼ 927 (1000-1¼)	1040-3 1027 (1100-3)	1160-3 1147 (1200-3)

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN FRANCISCO, CALIFORNIA — AL-375 (FAA)

LOC/DME I-GWQ	APP CRS	Rwy 28R Idg 11870	Rwy 28L Idg 10602
111.7	283°	TDZE 13	TDZE 13
Chan 54		Apt Elev 13	Apt Elev 13

ILS or LOC RWY 28R
SAN FRANCISCO INTL (SFO)

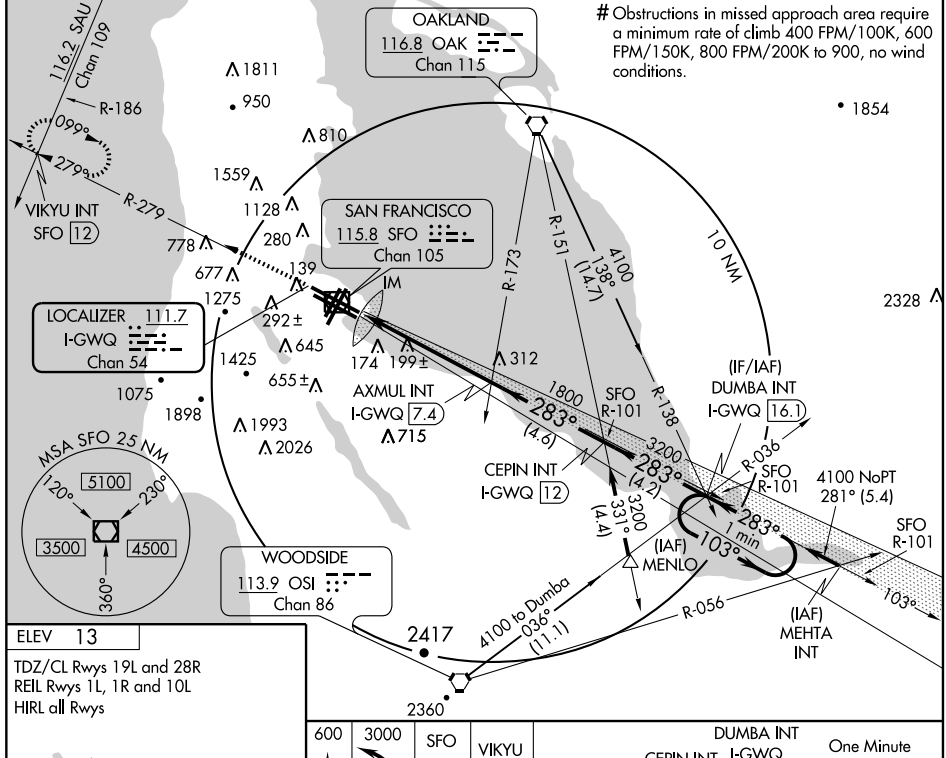
Inoperative table does not apply to Sidestep Rwy 28L Cat A and Cat B.
For inoperative SSALR, increase Sidestep R28L Cat C visibility to RVR 6000.

ALSF-2 Rwy 28R (A) — SSALR Rwy 28L (A3)

MISSED APPROACH: Climb to 600, then climbing left turn to 3000 via heading 281° and SFO VOR/DME R-279 to VIKYU Int/SFO 12 DME and hold. #

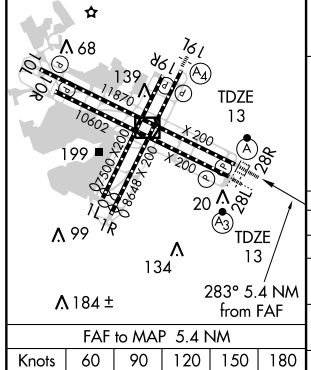
ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2

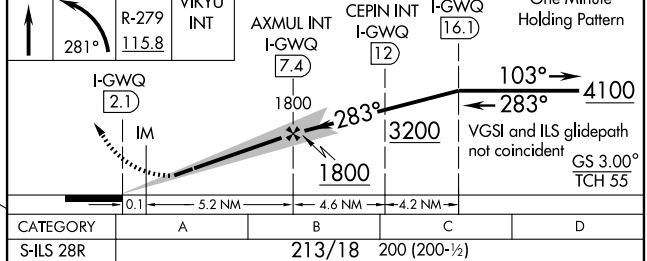
Obstructions in missed approach area require a minimum rate of climb 400 FPM/100K, 600 FPM/150K, 800 FPM/200K to 900, no wind conditions.



ELEV 13

TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L
HIRL all Rwys





CATEGORY	A	B	C	D
S-ILS 28R	213/18 200 (200-½)			
S-LOC 28R	460/24 447 (500-½)		460/40 447 (500-¾)	460/50 447 (500-1)
SIDESTEP RWY 28L	460/50 447 (500-1)			460-1½ 447 (500-1½)
CIRCLING	760-1 747 (800-1)	940-1¼ 927 (1000-1¼)	1040-3 1027 (1100-3)	1160-3 1147 (1200-3)

FAF to MAP 5.4 NM					
Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN FRANCISCO, CALIFORNIA

AL-375 (FAA)

ILS PRM RWY 28L (SIMULTANEOUS CLOSE PARALLEL)

SAN FRANCISCO INTL (SFO)

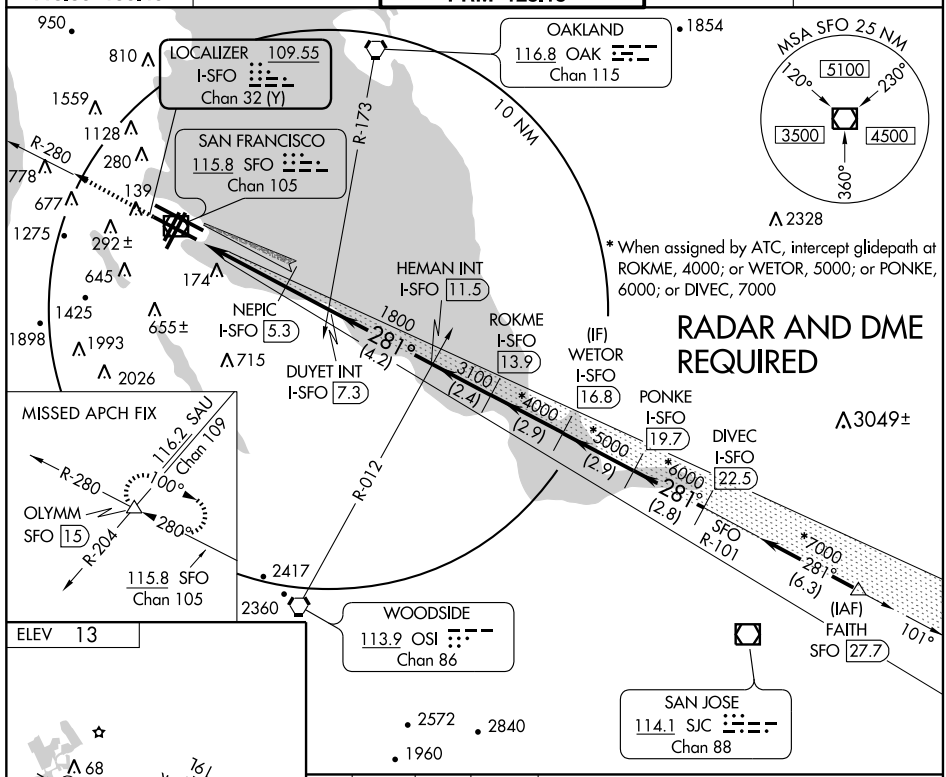
LOC/DME I-SFO	APP CRS	Rwy Idg	10602
109.55	281°	TDZE	13
Chan 32 (Y)		Apt Elev	13

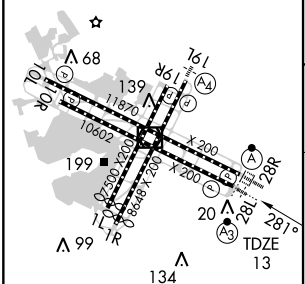
NA Simultaneous close parallel approach authorized with LDA PRM Rwy 28R.
Localizer only not authorized during close-parallel operations.
Dual VHF comm required. Disregard IM and MM indications.
See additional requirements on AAUP.
Runway 28L and 28R separated by 750' centerline to centerline.

SSALR (A3)

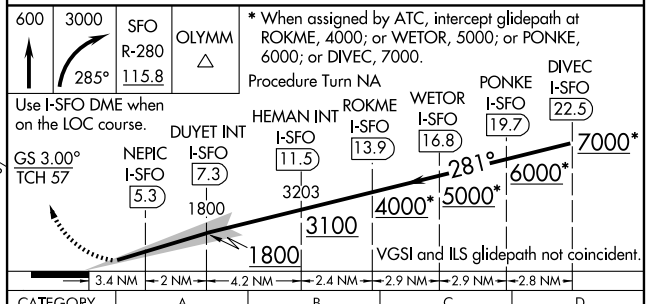
MISSED APPROACH: Climb to 600 then climbing right turn to 3000 via heading 285° and SFO VOR/DME R-280 to OLYMM INT/SFO VOR/DME 15 DME and hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8	134.5 338.2	120.5 269.1	121.8	118.2
118.85 135.45		PRM 125.15		





TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L
HIRL all Rwys



CATEGORY	A	B	C	D
S-ILS 28L	213/24 200 (200-½)			

SW-2, 14 JAN 2010 to 11 FEB 2010

ATTENTION ALL USERS PAGE (AAUP)

Condensed Briefing Points:

- Listen to the PRM monitor frequency when communicating with NORCAL approach control (135.65), no later than LOC intercept.
- Expect to be switched to SFO Tower (120.5) at NEPIC (I-SFO 5.3 DME).
- PRM monitor frequency may be de-selected after determining that the aircraft is on the tower frequency.

1. **ATIS.** When the ATIS broadcast advises that simultaneous ILS/PRM and LDA/PRM approaches are in progress, pilots should brief to fly the ILS/PRM 28L approach. If later advised to expect an ILS 28L approach, the ILS/PRM 28L chart may be used after completing the following briefing items:

   (a) Minimums and missed approach procedures are unchanged.
   (b) Monitor frequency no longer required.
   (c) A different glideslope intercept altitude may be assigned when advised to expect the ILS 28L approach.

Simultaneous parallel approaches will only be offered/conducted when the weather is at least 2100 feet (ceiling) and 4 miles (visibility).

2. **Dual VHF Communication required.** To avoid blocked transmissions, each runway will have two frequencies, a primary and a PRM monitor frequency. The NORCAL approach controller will transmit on both frequencies. The PRM Monitor controller's transmissions, if needed, will override both frequencies. Pilots will ONLY transmit on the approach controller's frequency (135.65), but will listen to both frequencies. Select the PRM monitor frequency audio only when in contact with NORCAL approach control (135.65). The volume levels should be set about the same on both radios so that the pilots will be able to hear transmissions on at least one frequency if the other is blocked. The PRM monitor frequency may be de-selected passing NEPIC.

3. **ALL "Breakouts"** are to be hand flown to assure that the maneuver is accomplished in the shortest amount of time. Pilots, when directed by ATC to break off an approach, must assume that an aircraft is blundering toward their course and a breakout must be initiated immediately.

   (a) ATC Directed "Breakouts:" ATC directed breakouts will consist of a turn and a climb or descent. Pilots must always initiate the breakout in response to an air traffic controller instruction. Controllers will give a descending breakout only when there are no other reasonable options available, but in no case will the descent be below minimum vectoring altitude (MVA) which provides at least 1000 feet required obstruction clearance. The MVA in the final approach segment is 1600 feet at San Francisco International Airport.

   (b) Phraseology - "TRAFFIC ALERT:" If an aircraft enters the "NO TRANSGRESSION ZONE" (NTZ), the controller will breakout the threatened aircraft on the adjacent approach. The phraseology for the breakout will be:

   "TRAFFIC ALERT, (aircraft call sign) TURN (left/right) IMMEDIATELY, HEADING (degrees), CLIMB/DESCEND AND MAINTAIN (altitude)".

4. Descending on (not above) the ILS glideslope ensures complying with any charted crossing restrictions and assists traffic on the LDA PRM 28R approach to mitigate possible wake turbulence encounters without destabilizing the LDA approach and creating a go-around.

5. **LDA Traffic:** While conducting this ILS/PRM approach to Runway 28L, other aircraft may be conducting the offset LDA/PRM approach to Runway 28R. These aircraft will approach from the right-rear and will re-align with 28R after making visual contact with the ILS traffic.

Special pilot training required. Pilots who are unable to participate, or dispatchers on their behalf, must contact the FAA Command Center prior to departure (1-800-333-4286 or 703-904-4452) to obtain an arrival reservation. Non-participating pilots enroute to SFO as an alternate, or trained pilots that are unexpectedly unable to participate due to in-flight circumstances will be afforded appropriate arrival services as operational conditions permit. Non-participating pilots shall notify the Oakland ARTCC as soon as practical, but at least 100 miles from SFO.

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-GWQ	APP CRS	Rwy Idg	11870
111.7	283°	TDZE	13
Chan 54		Apt Elev	13

ILS RWY 28R (CAT II)

SAN FRANCISCO INTL (SFO)

ALSF-2

MISSED APPROACH: Climb to 600, then climbing left turn to 3000 via heading 281° and SFO VOR/DME R-279 to VIKYU Int/SFO 12 DME and hold. #

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2

Obstructions in missed approach area require a minimum rate of climb 400 FPM/100K, 600 FPM/150K, 800 FPM/200K to 900, no wind conditions.

OAKLAND 116.8 OAK Chan 115

SAN FRANCISCO 115.8 SFO Chan 105

LOCALIZER 111.7 I-GWQ Chan 54

VIKYU INT SFO 12

AXMUL INT I-GWQ 7.4

CEPIN INT I-GWQ 12

DUMBA INT I-GWQ 16.1 (IF/IAF)

MENLO (IAF)

MEHTA INT (IAF)

SFO R-101

WOODSIDE 113.9 OSI Chan 86

MSA SFO 25 NM: 5100 (120°–230°), 3500, 4500, 360°

ELEV 13

TDZE 13

TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L
HIRL all Rwys

VGSI and ILS glidepath not coincident

600	3000	SFO R-279 115.8	VIKYU INT
	281°		

One Minute Holding Pattern

DH RA 113

13 MSL

GS 3.00° TCH 55

CATEGORY	A	B	C	D
S-ILS 28R	RA 113/12 100 DA 113			

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-GWQ	APP CRS	Rwy Idg	11870
111.7	283°	TDZE	13
Chan 54		Apt Elev	13

ILS RWY 28R (CAT III)

SAN FRANCISCO INTL (SFO)

ALSF-2

MISSED APPROACH: Climb to 600, then climbing left turn to 3000 via heading 281° and SFO VOR/DME R-279 to VIKYU Int/SFO 12 DME and hold. #

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2

Obstructions in missed approach area require a minimum rate of climb 400 FPM/100K, 600 FPM/150K, 800 FPM/200K to 900, no wind conditions.

OAKLAND 116.8 OAK Chan 115

SAN FRANCISCO 115.8 SFO Chan 105

LOCALIZER 111.7 I-GWQ Chan 54

116.2 SAU Chan 109

R-186 099° 279° R-279

VIKYU INT SFO 12

AXMUL INT I-GWQ 7.4

CEPIN INT I-GWQ 12

(IF/IAF) DUMBA INT I-GWQ 16.1

(IAF) MENLO

(IAF) MEHTA INT

WOODSIDE 113.9 OSI Chan 86

4100 to DUMBA 036° (11.1)

R-056 R-151 R-173 R-138 R-036

4100 (14.7) 138°

10 NM

SFO R-101

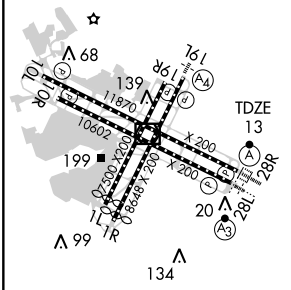
4100 NoPT 281° (5.4)

1 min 283° 103°

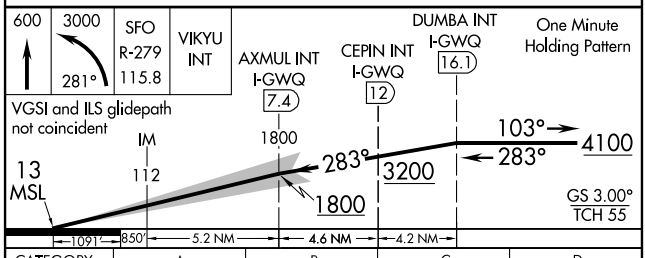
MSA SFO 25 NM 5100 3500 4500 120° 230° 360°

1811 950 1854 810 1559 1128 280 778 677 139 1275 292± 645 1425 655± 1075 1898 1993 2026 174 199± 312 715 1800 283° (4.6) 3200 283° (4.2) 331° (4.4) 3200 2328 2417 2360

ELEV 13



TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L
HIRL all Rwys



CATEGORY	A	B	C	D
S-ILS 28R	CAT IIIa	RVR 07		
S-ILS 28R	CAT IIIb	RVR 06		
S-ILS 28R	CAT IIIc	NA		

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-FNP	APP CRS	Rwy Idg	11870
110.75	278°	TDZE	13
Chan 44(Y)		Apt Elev	13

LDA/DME RWY 28R
SAN FRANCISCO INTL (SFO)

NA

Runway 28L and 28R separated by 750 feet centerline to centerline.
Procedure NA when glideslope is not available.
Localizer course 1199' right of Rwy 28R threshold.
Inoperative table does not apply.

ALSF-2

MISSED APPROACH: Climbing right turn to 6000 via heading 030° and SFO VOR/DME R-035 and OAK VORTAC R-060 to SALAD INT and hold, continue climb in hold to 6000.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2

RADAR AND DME REQUIRED
LDA/GLIDESLOPE

OAKLAND
116.8 OAK
Chan 115

LOCALIZER 110.75
I-FNP
Chan 44(Y)
LOC offset 3.01°

SALAD
OAK 12.9
112.1 SGD
Chan 58

R-060 R-035 R-124 240° 060°

10 NM

Fly Visual
274° 3.4 NM

DARNE I-FNP 4
GOBEC I-FNP 6
MIUKE I-FNP 9.7
WASOP I-FNP 12.6
HEGOT I-FNP 15.5
FATUS I-FNP 18.4
(IAF) ANETE I-FNP 21.3

1800 (3.6) 278° 3000 (3) *4000 (2.9) *5000 (2.9) *6000 (2.8)

*When assigned by ATC, intercept glidepath at WASOP, 4000; or HEGOT, 5000; or FATUS, 6000.

SAN FRANCISCO
115.8 SFO
Chan 105

MSA SFO 25 NM
5100
120° 230°
3500 4500
360°

1811 950 810 1559 1128 778 280 677 139 1275 292± 645 174 1075 1425 655± 1898 1993 2026 715 1630 2222 1854 2328 3049± 2417 2360

ELEV 13

TDZE 13

68 139 199 99 134 184± 20 28L 28R 1L 1R 10L 10R 19L 19R

11870 10602 X 200 7500 X 200 8648 X 200

Fly Visual
274°
3.4 NM

TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R, and 10L
HIRL all Rwys

6000 030°	SFO R-035 115.8	OAK R-060 116.8	SALAD △

*When assigned by ATC, intercept glidepath at WASOP, 4000; or HEGOT, 5000; or FATUS, 6000.

DARNE I-FNP 4 — GOBEC I-FNP 6 — MIUKE I-FNP 9.7 — WASOP I-FNP 12.6 — HEGOT I-FNP 15.5 — FATUS I-FNP 18.4 — ANETE I-FNP 21.3

Fly Visual 274° 3.4 NM — 1800 — 3000 — 4000* — 5000* — 6000* — 7000 — 278° — GS 3.00° TCH 57

3.4 — 2 NM — 3.6 NM — 3 NM — 2.9 NM — 2.9 NM — 2.8 NM

CATEGORY	A	B	C	D
S-LDA/GS 28R	1140-4	1127 (1200-4)		

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN FRANCISCO, CALIFORNIA

AL-375 (FAA)

LDA PRM RWY 28R
(SIMULTANEOUS CLOSE PARALLEL)
SAN FRANCISCO INTL (SFO)

LOC/DME I-FNP	APP CRS	Rwy Idg	11870
110.75	278°	TDZE	13
Chan 44(Y)		Apt Elev	13

T
ANA

Simultaneous close parallel approach authorized with ILS PRM Rwy 28L.
Localizer only not authorized during close parallel operations.
Dual VHF comm required. See additional requirements on AAUP.
Runway 28L and 28R separated by 750 feet centerline to centerline.
Localizer course 1199' right of Rwy 28R threshold.
Inoperative table does not apply.

ALSF-2

MISSED APPROACH: Climbing right turn to 6000 via heading 030° and SFO VOR/DME R-035 and OAK VORTAC R-060 to SALAD INT and hold, continue climb in hold to 6000.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1 PRM 127.675	121.8	118.2

RADAR AND DME REQUIRED
LDA/GLIDESLOPE

OAKLAND 116.8 OAK Chan 115

LOCALIZER 110.75 I-FNP Chan 44(Y) LOC offset 3.01°

SALAD OAK 12.9 112.1 SGD Chan 58

R-060 R-035 R-124 240° 060° 10 NM

NOTE: If go around executed after crossing DARNE, terrain in missed approach area requires a rate of climb of at least 475 FPM/100K, 713 FPM/150K, 950 FPM/200K, to 1600 no wind conditions.

Fly Visual 274° 3.4 NM

DARNE I-FNP 4 GOBEC I-FNP 6 MIUKE I-FNP 9.7 WASOP I-FNP 12.6 HEGOT I-FNP 15.5 FATUS I-FNP 18.4 (IAF) ANETE I-FNP 21.3

1800 (3.6) 278° 3000 (3) *4000 (2.9) *5000 (2.9) *6000 (2.8)

*When assigned by ATC, intercept glidepath at WASOP, 4000; or HEGOT, 5000; or FATUS, 6000.

098°

SAN FRANCISCO 115.8 SFO Chan 105

MSA SFO 25 NM
120° 230° 360°
5100 3500 4500

ELEV 13

TDZE 13

199 20 99 134 184±

Fly Visual 274° 3.4 NM

TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R, and 10L
HIRL all Rwys

6000	SFO	OAK	SALAD
030°	R-035 115.8	R-060 116.6	△

*When assigned by ATC, intercept glidepath at WASOP, 4000; or HEGOT, 5000; or FATUS, 6000.

DARNE I-FNP 4 GOBEC I-FNP 6 MIUKE I-FNP 9.7 WASOP I-FNP 12.6 HEGOT I-FNP 15.5 FATUS I-FNP 18.4 ANETE I-FNP 21.3

Fly Visual 274° 3.4 NM

1800 3000 4000* 5000* 6000* 7000

GS 3.00° TCH 57

3.4 | 2 NM | 3.6 NM | 3 NM | 2.9 NM | 2.9 NM | 2.8 NM

CATEGORY	A	B	C	D
S-LDA/GS 28R	1140-4 1127 (1200-4)			

SW-2, 14 JAN 2010 to 11 FEB 2010

ATTENTION ALL USERS PAGE (AAUP)

Condensed Briefing Points:

- Listen to the PRM monitor frequency when communicating with the NORCAL approach control (frequency 120.35), no later than LOC intercept.
- Report the ILS traffic in sight as soon as practical and prior to DARNE. DO NOT PASS.
- Expect to be switched to SFO tower (120.5) at DARNE, (I-FNP 4.0 DME).
- Remain on the LDA until passing DARNE (LDA MAP) so as not to penetrate the NTZ.
- PRM monitor frequency may be de-selected after determining that the aircraft is on the tower frequency.

1. **ATIS.** When the ATIS broadcast advises that simultaneous ILS/PRM and LDA/PRM approaches are in progress, pilots should brief to fly the LDA/PRM 28R approach. If later advised to expect an LDA/DME 28R approach, the LDA/PRM 28R chart may be used after completing the following briefing items:

(a) Minimums and missed approach procedures are unchanged.
(b) Monitor frequency no longer required.
(c) A different glideslope intercept altitude may be assigned when advised to expect LDA/DME 28R approach.

Simultaneous parallel approaches will only be offered/conducted when the weather is at least 2100 feet (ceiling) and 4 miles (visibility).

2. **Dual VHF Communication required.** To avoid blocked transmissions, each runway will have two frequencies, a primary and a PRM monitor frequency. The NORCAL approach controller will transmit on both frequencies. The PRM Monitor controller's transmissions, if needed, will override both frequencies. Pilots will ONLY transmit on the approach controller's frequency (120.35), but will listen to both frequencies. Select the PRM monitor frequency audio only when in contact with the NORCAL approach control (120.35). The volume levels should be set about the same on both radios so that the pilots will be able to hear transmissions on at least one frequency if the other is blocked. If executing a missed approach at DARNE, begin the turn as soon as practical.

3. **ALL "Breakouts"** are to be hand flown to assure that the maneuver is accomplished in the shortest amount of time. Pilots, when directed by ATC to break off an approach, must assume that an aircraft is blundering toward their course and a breakout must be initiated immediately.

(a) ATC Directed "Breakouts": ATC directed breakouts will consist of a turn and a climb or descent. Pilots must always initiate the breakout in response to an air traffic controller instruction. Controllers will give a descending breakout only when there are no other reasonable options available, but in no case will the descent be below minimum vectoring altitude (MVA) which provides at least 1000 feet required obstruction clearance. The applicable MVA is 1600 feet at SFO.

(b) Phraseology - "TRAFFIC ALERT" : If an aircraft enters the "NO TRANSGRESSION ZONE" (NTZ), the controller will breakout the threatened aircraft on the adjacent approach. The phraseology for the breakout will be:

"TRAFFIC ALERT, (aircraft call sign) TURN (left/right) IMMEDIATELY, HEADING (degrees), CLIMB/DESCEND AND MAINTAIN (altitude)".

4. **Glide Slope Navigation:** Descending on the glide slope ensures compliance with any charted crossing restrictions.

5. **SFO LDA Visual Segment.** If ATC advises that there is traffic on the 28L ILS, pilots are authorized to continue past the LDA 28R MAP to align with runway 28R centerline when:

(a) the ILS traffic is in sight and is expected to remain in sight.
(b) ATC has been advised that "traffic is in sight." (ATC is not required to acknowledge this transmission.)
(c) the runway environment is in sight.

Otherwise, a missed approach must be executed at the LDA MAP. Between DARNE and the runway threshold, pilots of the LDA aircraft are responsible for separating themselves visually from traffic on the ILS approach, which means maneuvering the aircraft as necessary to avoid the ILS traffic until landing (do not pass), and providing wake turbulence avoidance, if applicable. If visual contact with the ILS traffic is subsequently lost, advise ATC as soon as practical and execute the published missed approach unless otherwise instructed by ATC.

Refer to "special pilot training required" on the ILS PRM 28L AAUP for specific non-participation procedures.

SW-2, 14 JAN 2010 to 11 FEB 2010

CLOVIS TRANSITION (CZQ.LOCKE1): From over CZQ VORTAC via CZQ R-305 and MOD R-093 to MOD VOR/DME. Thence....

COALDALE TRANSITION (OAL.LOCKE1): From over OAL VORTAC via OAL R-246 and MOD R-064 to MOD VOR/DME. Thence...

MINA TRANSITION (MVA.LOCKE1): From over MVA VORTAC via MVA R-204, OAL R-246 and MOD R-064 to MOD VOR/DME. Thence....

MUSTANG TRANSITION (FMG.LOCKE1): From over FMG VORTAC via FMG R-182 and MOD R-064 to MOD VOR/DME. Thence....

....From over MOD VOR/DME via MOD R-245 to GROAN INT, then via SGD VORTAC R-107 to UPEND INT. Expect vectors to final approach course.

LOST COMMUNICATIONS METRO OAKLAND INTL ONLY: Depart UPEND INT via SGD R-107 to intercept and proceed via SAU R-035 to COMMO INT.

OAKLAND CENTER
134.37 281.5
NORCAL APP CON
128.325 254.3
SAN FRANCISCO INTL ATIS
113.7 118.85

MUSTANG
117.9 FMG
Chan 126
N39°31.88'-W119°39.36'
L-9, H-3

MINA
115.1 MVA
Chan 98
N38°33.92'-W118°01.97'
L-9, H-3

COALDALE
117.7 OAL
Chan 124
N38°00.20'-W117°46.23'
L-9, H-3

CLOVIS
112.9 CZQ
Chan 76
N36°53.06'-W119°48.91'
L-3-9, H-3

SCAGGS ISLAND
112.1 SGD
Chan 58

LOCALIZER 108.9
I-SIA
Chan 26

MANTECA
116.0 ECA
Chan 107

MODESTO
114.6 MOD
Chan 93
N37°37.64'-W120°57.47'

COMMO
N37°52.45'
W122°29.52'

116.2 SAU
R-035
Chan 109

UPEND
N38°01.92'
W122°05.82'

GROAN
N37°35.42'
W121°17.11'

(ITGIJ)
N37°49.56'
W119°22.09'

INYOE
N37°53.74'
W118°45.90'

TROSE
N37°41.95'
W120°24.25'

(IVIPY)
N37°28.56'
W120°26.39'

LOCKE
N37°42.81'
W121°30.58'

Expect clearance to cross at 10,000 feet. Turbojets cross at 250K IAS.

METRO OAKLAND INTL

SAN FRANCISCO INTL

OAKLAND
116.8 OAK
Chan 115

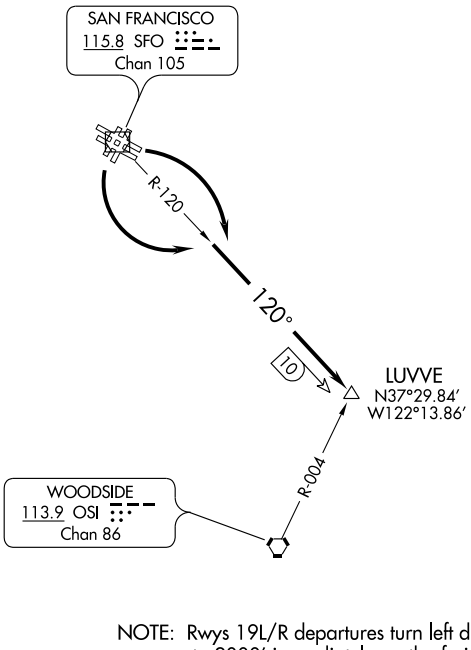
SAN FRANCISCO
115.8 SFO
Chan 105

R-107
191°
R-229
R-288
R-011
287° (34)
50
6000
287° (13)
63
8000
245° (16)
R-064
R-093
FL180
244° (27)
273° (26)
FL220
182° (115)
FL180
244° (50)
77
77
246° (29)
FL190
204° (53)
FL190
246° (48)
8000
305° (47)

NOTE: Chart not to scale.

LUVVE TWO DEPARTURE

ATIS 135.45
GND CON
121.8
SAN FRANCISCO TOWER
120.5 269.1
NORCAL DEP CON
135.1 307.2



NOTE: Rwys 19L/R departures turn left due to steeply rising terrain to 2000' immediately south of airport.
For obstacle clearance the following minimum climb rates are required:
Rwy 19L, 480' per NM to 1400'.
Rwy 19R, Categories A, B, 480' per NM to 1400'; Categories C, D, 530' per NM to 1800'.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 10L/R: Turn right and climb via SFO R-120 to LUVVE INT, expect vector to assigned route/fix after LUVVE INT. Expect further clearance to filed altitude 10 minutes after departure.

TAKE-OFF RUNWAYS 19L/R: Turn left and climb via SFO R-120 to LUVVE INT, expect vector to assigned route/fix after LUVVE INT. Expect further clearance to filed altitude 10 minutes after departure.

LOST COMMUNICATIONS:

TAKE-OFF RUNWAYS 10L/R and 19L/R: If not in contact with departure control after reaching 3000' continue climb to assigned altitude and proceed direct to assigned route/fix.

SW-2, 14 JAN 2010 to 11 FEB 2010

MODESTO THREE ARRIVAL

SAN FRANCISCO INTL
SAN FRANCISCO, CALIFORNIA

CLOVIS TRANSITION (CZQ.MOD3): From over CZQ VORTAC via CZQ R-305 and MOD R-092 to MOD VOR/DME. Thence....

COALDALE TRANSITION (OAL.MOD3): From over OAL VORTAC via OAL R-246 and MOD R-064 to MOD VOR/DME. Thence....

MINA TRANSITION (MVA.MOD3): From over MVA VORTAC via MVA R-204, OAL R-246 and MOD R-064 to MOD VOR/DME. Thence....

MUSTANG TRANSITION (FMG.MOD3): From over FMG VORTAC via FMG R-182 and MOD R-064 to MOD VOR/DME. Thence....

....From over MOD VOR/DME via MOD R-245 to CEDES INT, then via OSI R-056 to OOMEN INT, then via OSI R-056 to MEHTA INT. Expect vectors to the final approach course.

LOST COMMUNICATIONS: Intercept and proceed via SFO RWY 28R localizer to DUMBA INT.

OAKLAND CENTER
134.37 281.5
NORCAL APP CON
128.325 254.3
ATIS
113.7 118.85

MUSTANG
117.9 FMG
Chan 126
N39°31.88'-W119°39.36'
L-9, H-3

MINA
115.1 MVA
Chan 98
N38°33.92'-W118°01.97'
L-9, H-3

INYOE
N37°53.74'
W118°45.90'

KYLLA
N37°49.56'
W119°22.09'

TROSE
N37°41.95'
W120°24.25'

COALDALE
117.7 OAL
Chan 124
N38°00.20'-W117°46.23'
L-9, H-3

CLOVIS
112.9 CZQ
Chan 76
N36°53.06'-W119°48.91'
L-3-9, H-3

MODESTO
114.6 MOD
Chan 93
N37°37.64'-W120°57.47'

MANTECA
116.0 ECA
Chan 107

112.1 SGD
Chan 58

LOCALIZER 111.7
I-GWQ
Chan 54

OAKLAND
116.8 OAK
Chan 115

SAN FRANCISCO
115.8 SFO
Chan 105

WOODSIDE
113.9 OSI
Chan 86

DUMBA
N37°30.21'
W122°05.77'

GROAN
N37°35.42'
W121°17.11'

OOMEN
N37°28.61'
W121°56.01'

MEHTA
N37°27.70'
W121°59.79'

CEDES
N37°33.05'
W121°37.48'
Expect clearance to cross at 11000.

LNNDA
N37°28.93'
W120°26.65'

FL240
182°
(115)

FL190
204°
(53)

FL190
246°
(48)

FL180
246°
(29)

FL180
244°
(50)

FL180
244°
(27)

8000
245°
(16)

7000
236°
(15)

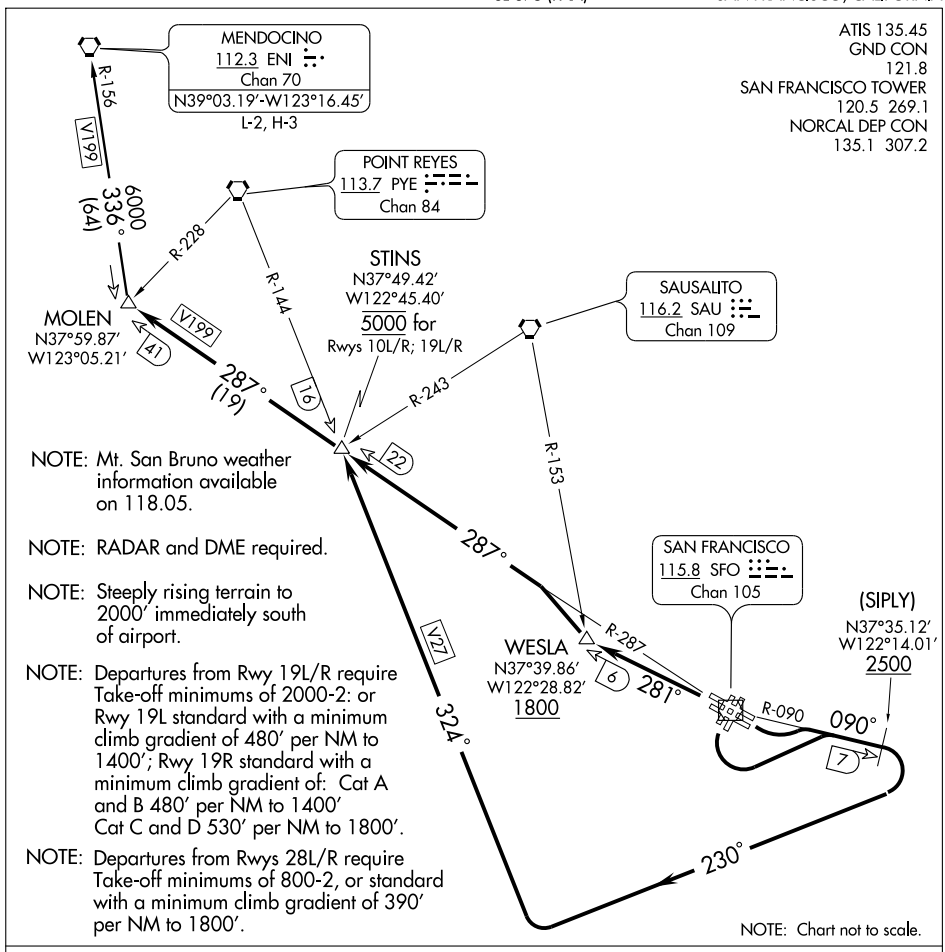
272°
(26)

8000
305°
(47)

R-064
R-092
R-107
R-215
R-093
R-095
R-101
R-138
R-036
R-056
I-GWQ
RWY 28R
283°

NOTE: Chart not to scale.

MOLEN THREE DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 10L/R and 19L/R: Turn left and climb via the SFO R-090 to the 7 DME Fix, then turn right heading 230° to intercept and proceed via PYE R-144 to STINS INT. Cross the SFO R-090 7 DME Fix at or above 2500'. Cross STINS INT at 5000'. Thence via (transition) or (assigned route). Expect further clearance to filed altitude 10 minutes after departure.

TAKE-OFF RUNWAYS 28L/R: Intercept and proceed via SFO R-281 to WESLA INT, then turn right to intercept and proceed via SFO R-287 to MOLEN INT. Cross the SFO R-281 6 DME Fix (WESLA INT) at or above 1800'. Thence via (transition) or (assigned route). Expect further clearance to filed altitude 10 minutes after departure.

MENDOCINO TRANSITION (MOLEN3.ENI): From over MOLEN INT via ENI R-156 ENI VORTAC.

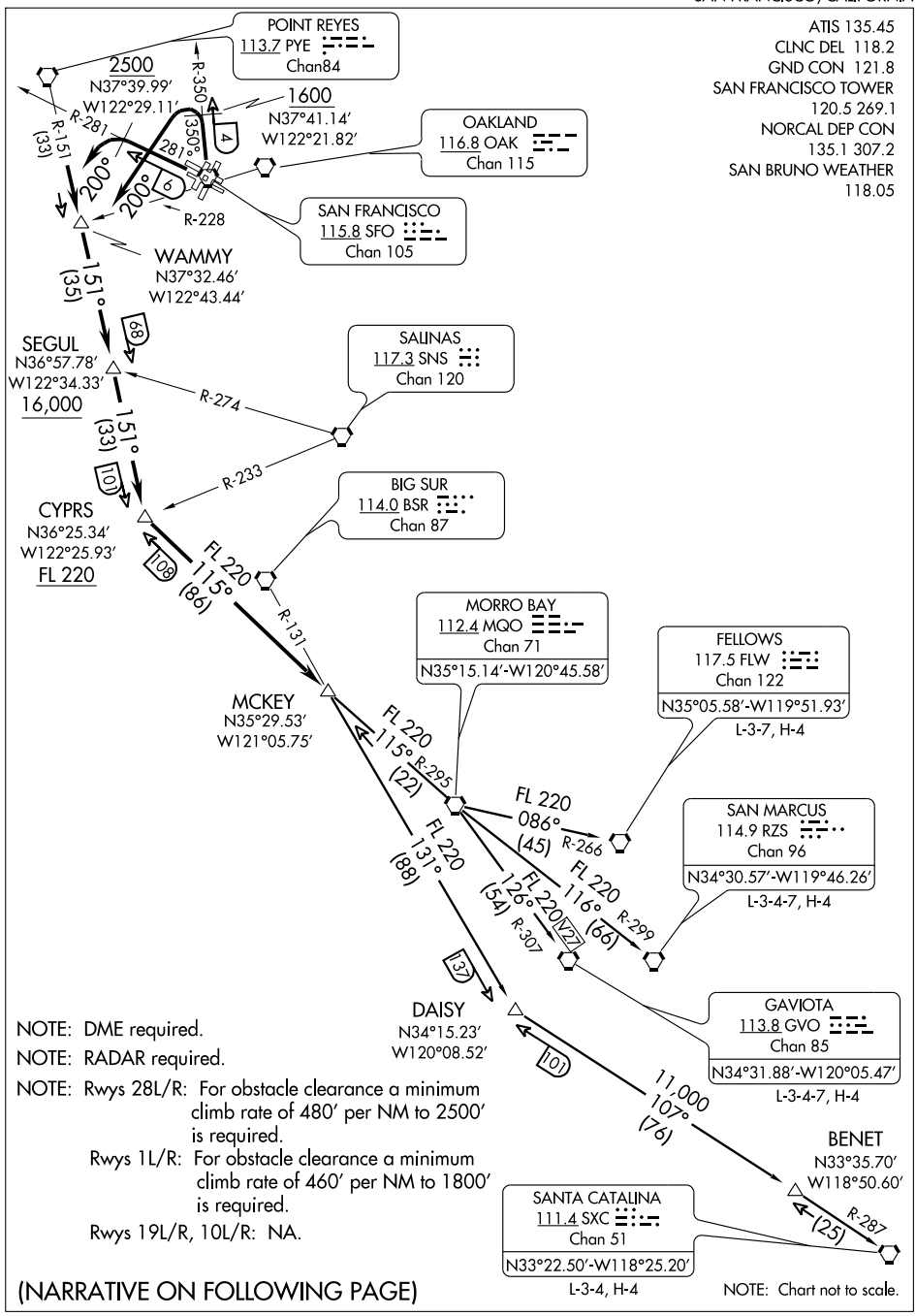
(OFFSH5.MCKEY) 09239

OFFSHORE FIVE DEPARTURE

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

ATIS 135.45
CLNC DEL 118.2
GND CON 121.8
SAN FRANCISCO TOWER
120.5 269.1
NORCAL DEP CON
135.1 307.2
SAN BRUNO WEATHER
118.05



NOTE: DME required.

NOTE: RADAR required.

NOTE: Rwys 28L/R: For obstacle clearance a minimum climb rate of 480′ per NM to 2500′ is required.
Rwys 1L/R: For obstacle clearance a minimum climb rate of 460′ per NM to 1800′ is required.
Rwys 19L/R, 10L/R: NA.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 1L/R: Intercept and proceed via SFO R-350. Cross SFO R-350 4 DME at or above 1600'. Thence....

TAKE-OFF RUNWAYS 28L/R: Intercept and proceed via SFO R-281. Cross SFO R-281 6 DME at or above 2500'. Thence....

.... Turn left heading 200° to intercept and proceed via PYE R-151 to SEGUL INT. Cross SEGUL INT at or above 16,000'. Then proceed via PYE R-151 to CYPRS INT; cross CYPRS INT at or above FL 220. Then via the MQO R-295 to MCKEY INT, then via (transition) or (assigned route). Expect further clearance to filed altitude 10 minutes after departure. When SFO VOR/DME is inoperative, Runway 28 departures expect radar vector to PYE R-151, then resume departure.

FELLOWS TRANSITION (OFFSH5.FLW): From over MCKEY INT via MQO R-295 to MQO VORTAC, then via MQO R-086 and FLW R-266 to FLW VORTAC.

GAVIOTA TRANSITION (OFFSH5.GVO): From over MCKEY INT via MQO R-295 to MQO VORTAC, then via MQO R-126 and GVO R-307 to GVO VORTAC.

SAN MARCUS TRANSITION (OFFSH5.RZS): From over MCKEY INT via MQO R-295 to MQO VORTAC, then via MQO R-116 and RZS R-299 to RZS VORTAC.

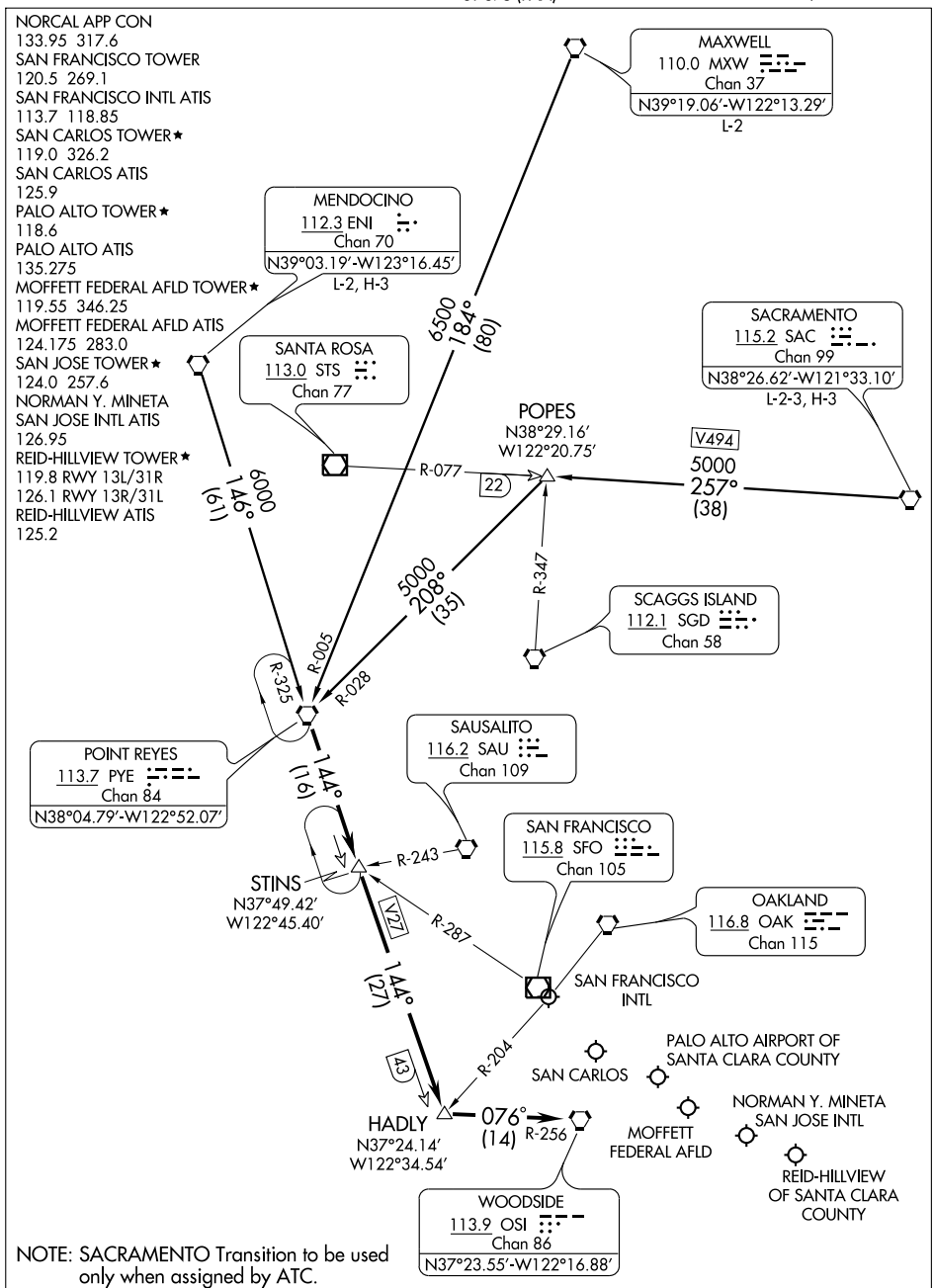
SANTA CATALINA TRANSITION (OFFSH5.SXC): From over MCKEY INT via BSR R-131 and SXC R-287 to SXC VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

POINT REYES ONE ARRIVAL

ST-375 (FAA)

SAN FRANCISCO, CALIFORNIA



NOTE: SACRAMENTO Transition to be used only when assigned by ATC.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SW-2, 14 JAN 2010 to 11 FEB 2010

ARRIVAL DESCRIPTION

MAXWELL TRANSITION (MXW.PYE1): From over MXW VORTAC via MXW R-184 and PYE R-005 to PYE VORTAC. Thence....

MENDOCINO TRANSITION (ENI.PYE1): From over ENI VORTAC via ENI R-146 and PYE R-325 to PYE VORTAC. Thence....

SACRAMENTO TRANSITION (SAC. PYE1): From over SAC VORTAC via SAC R-257 and PYE R-028 to PYE VORTAC. Thence....

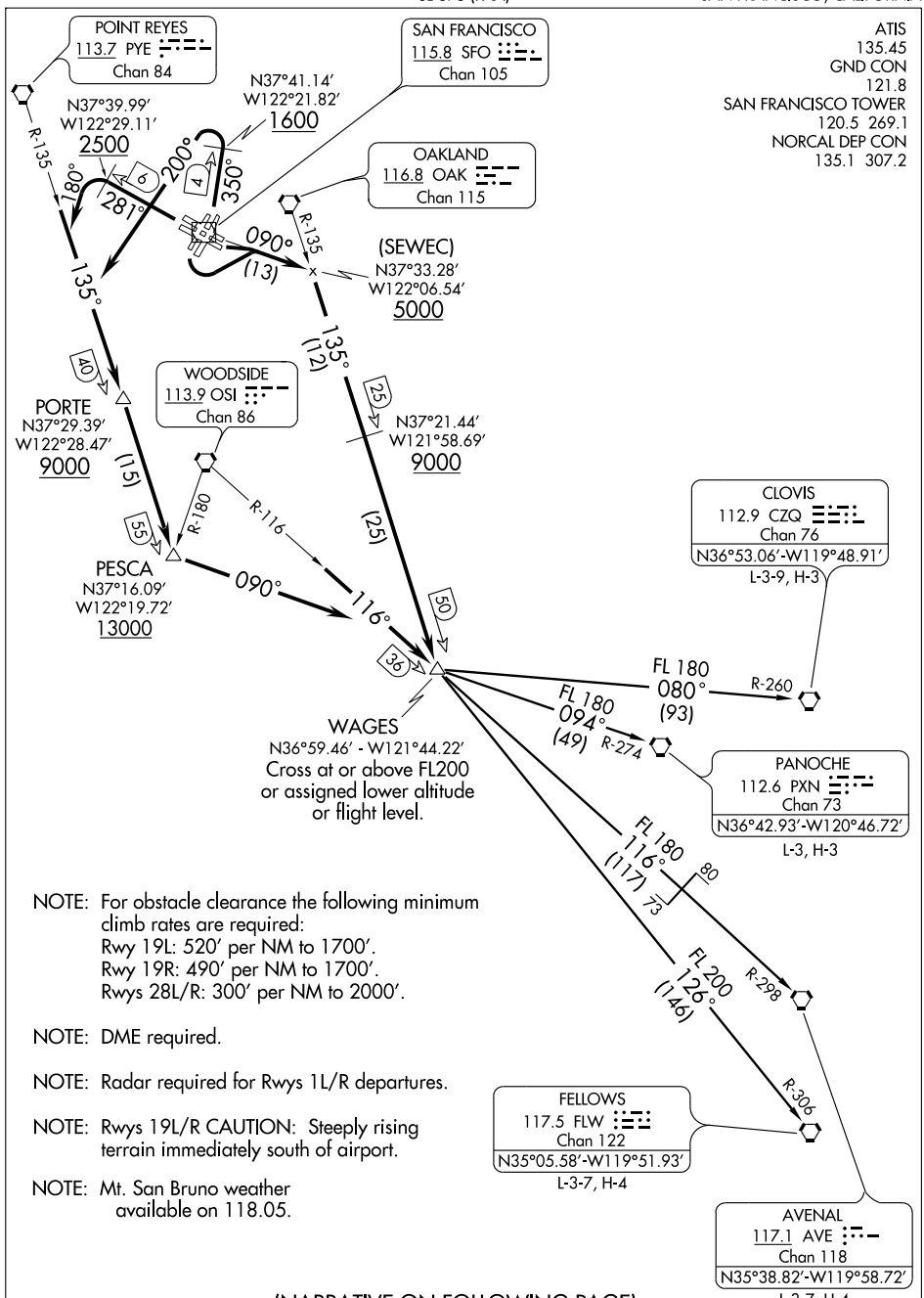
....From over PYE VORTAC via PYE R-144 to HADLY INT, then via OSI R-256 to OSI VORTAC. Expect radar vectors to final approach course.

SW-2, 14 JAN 2010 to 11 FEB 2010

PORTE THREE DEPARTURE

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA



NOTE: For obstacle clearance the following minimum climb rates are required:
Rwy 19L: 520′ per NM to 1700′.
Rwy 19R: 490′ per NM to 1700′.
Rwys 28L/R: 300′ per NM to 2000′.

NOTE: DME required.

NOTE: Radar required for Rwys 1L/R departures.

NOTE: Rwys 19L/R CAUTION: Steeply rising terrain immediately south of airport.

NOTE: Mt. San Bruno weather available on 118.05.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SW-2, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 1L/R: Intercept and proceed via SFO R-350. Cross SFO R-350/4 DME fix at or above 1600′. Turn left heading 200° to intercept and proceed via PYE R-135. Cross PORTE DME fix at or above 9000′ and PESCA DME fix at or above 13,000′. Then turn left heading 090° to intercept and proceed via the OSI R-116 to WAGES INT. Cross WAGES INT at or above FL 200 or assigned lower altitude or flight level. Thence via (transition) or (assigned route). Expect clearance to filed altitude 10 minutes after departure.

TAKE-OFF RUNWAYS 10L/R and 19L/R: Turn left and climb via the SFO R-090 to intercept the OAK R-135 at or above 5000′. Proceed via the OAK R-135 to WAGES INT. Cross the OAK R-135/25 DME fix at or above 9000′. Cross WAGES INT at or above FL 200 or assigned lower altitude or flight level. Thence via (transition) or (assigned route). Expect clearance to filed altitude 10 minutes after departure.

TAKE-OFF RUNWAYS 28L/R: Intercept and proceed via the SFO R-281, cross SFO R-281/6 DME fix at or above 2500′, then turn left heading 180° to intercept and proceed via the PYE R-135 to cross PORTE DME fix at or above 9000′ and PESCA DME fix at or above 13,000′. Then turn left heading 090° to intercept and proceed via the OSI R-116 to WAGES INT. Cross WAGES INT at or above FL 200 or assigned lower altitude or flight level. Thence via (transition) or (assigned route). Expect clearance to filed altitude 10 minutes after departure. When SFO VOR/DME is inoperative, Rwy 28 departures expect radar vector to PYE R-135 then resume SID.

AVENAL TRANSITION (PORTE3.AVE): From over WAGES INT via OSI R-116 and AVE R-298 to AVE VORTAC.

CLOVIS TRANSITION (PORTE3.CZQ): From over WAGES INT via CZQ R-260 to CZQ VORTAC.

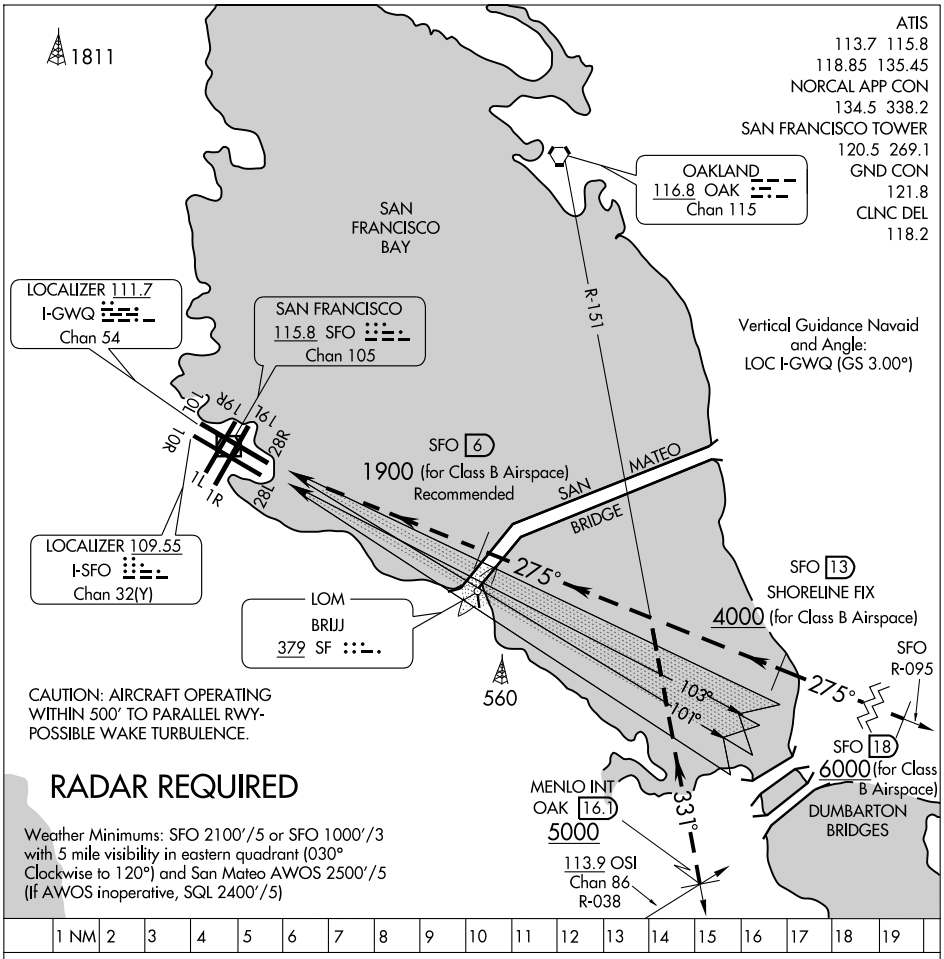
FELLOWS TRANSITION (PORTE3.FLW): From over WAGES INT via FLW R-306 to FLW VORTAC.

PANOCHE TRANSITION (PORTE3.PXN): From over WAGES INT via PXN R-274 to PXN VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

QUIET BRIDGE VISUAL RWYS 28L/R

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA



QUIET BRIDGE VISUAL APPROACH RWYS 28L/R

When visual approaches to Runways 28L/R are in progress, arriving aircraft may be vectored into a position for a straight-in visual approach to Runways 28L/R via the SFO VOR R-095.

SFO VOR and DME must be operating.

Aircraft should remain on the SFO R-095 until passing the San Mateo Bridge.

NOTE: Closely spaced parallel visual approaches may be in progress to Runway 28L utilizing I-SFO. In the event of a go-around on Runway 28L, turn left heading 265°, or on Runway 28R, turn right heading 310°, climb and maintain 3000, or as directed by Air Traffic Control.

QUIET TWO DEPARTURE

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

ATIS
135.45
GND CON
121.8
SAN FRANCISCO TOWER
120.5 269.1
NORCAL DEP CON
120.9 323.2

RED BLUFF
115.7 RBL
Chan 104
N40°05.93′-W122°14.18′
L-2, H-3

CHICO
109.8 CIC
Chan 35
N39°47.39′-W121°50.83′
L-2

MENDOCINO
112.3 ENI
Chan 70
N39°03.19′-W123°16.45′
L-2, H-3

(SAWNA)
N38°52.11′
W122°24.11′

(SASSU)
N38°22.08′
W122°22.85′

SCAGGS ISLAND
112.1 SGD
Chan 58

SACRAMENTO
115.2 SAC
Chan 99
N38°26.62′-W121°33.10′
L-2-3, H-3

SAUSALITO
116.2 SAU
Chan 109

LINDEN
114.8 LIN
Chan 95
N38°04.47′
W121°00.23′
L-2-3, H-3

REBAS
N37°56.44′
W122°23.02′
6000

(SASLY)
N37°40.71′
W122°20.07′
RADAR

SAN FRANCISCO
115.8 SFO
Chan 105

R-168 8000 *5100 348° (74)
R-190 8000 *5100 010° (61)
R-118 8000 *6400 298° (59)
8000 *5100 342° (30)
8000 *5100 342° (26)
3000 036° (50) V150 R-216
5000 066° (66) R-246
SGD R-165
R-035 19
342°
V87 320° R-011
030° R-342 011° 4

NOTE: Mt. San Bruno weather information available on 118.05.

NOTE: Runways 28L/R Caution: terrain above 1000′ at 3.5 NM NW. For obstruction clearance a minimum climb of 425′ per NM to 1500′ is required.

NOTE: For use by Runways 28L/R departures when weather conditions permit. Jets 2000′ ceiling and three miles prevailing visibility with five miles to the west and northwest. Props 1500′ ceiling, same visibility.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 1L/R: Climb via SFO R-011 to the 4 DME/Radar then turn left heading 320° to intercept and proceed via SFO R-342 to cross REBAS INT at or above 6000′. Thence via (transition) or (assigned route). Expect clearances to filed altitude 10 minutes after departure.

TAKE-OFF RUNWAYS 28L/R: Turn right heading 030° to intercept and proceed via the SFO R-342 to REBAS INT. Cross REBAS INT at or above 6000′. Then via (transition) or (assigned route). Maintain VFR conditions until intercepting SFO R-342. Expect clearance to filed altitude 10 minutes after departure.

CHICO TRANSITION (CUIT2.CIC): From over REBAS INT via SFO R-342 and CIC R-190 to CIC VOR/DME.

LINDEN TRANSITION (CUIT2.LIN): From over REBAS INT via LIN R-246 to LIN VORTAC.

MENDOCINO TRANSITION (CUIT2.ENI): From over REBAS INT via SFO R-342 and ENI R-118 to ENI VORTAC.

RED BLUFF TRANSITION (CUIT2.RBL): From over REBAS INT via SFO R-342 and RBL R-168 to RBL VORTAC.

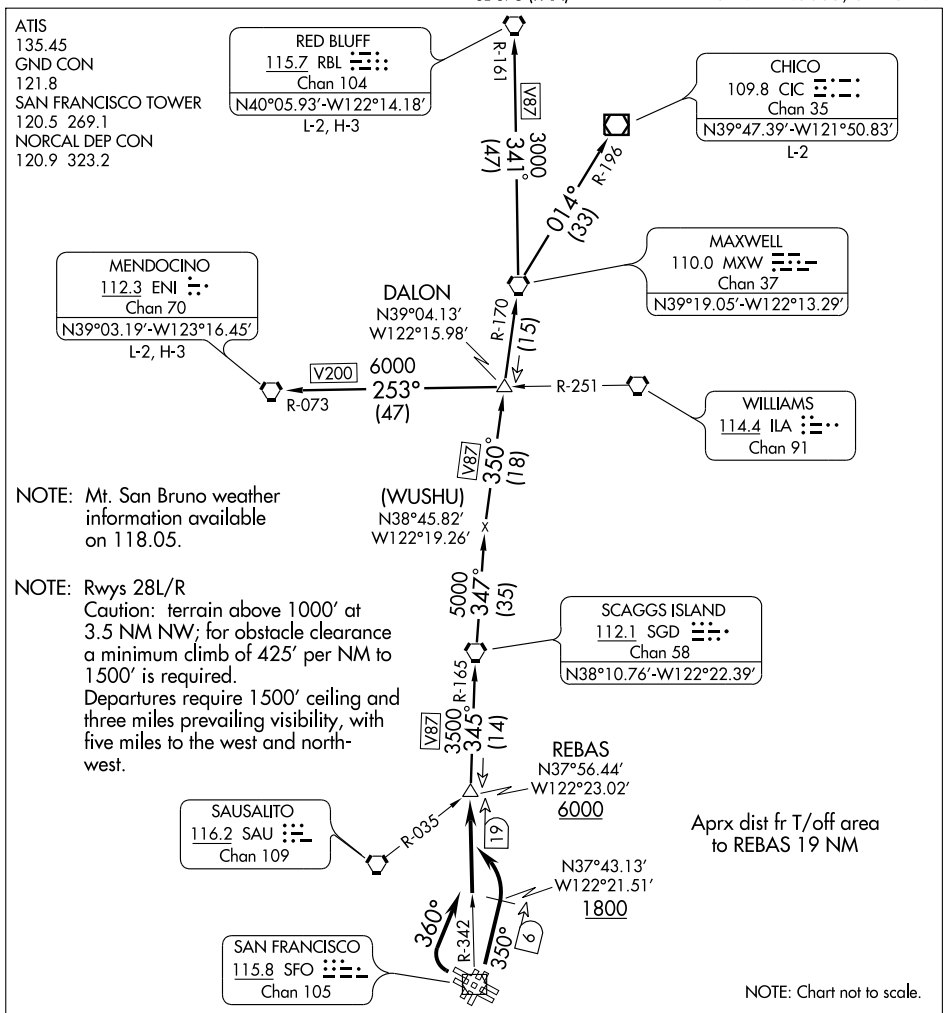
SACRAMENTO TRANSITION (CUIT2.SAC): From over REBAS INT via SAC R-216 to SAC VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

REBAS THREE DEPARTURE (PROP)

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 1L/R: Climb via the SFO R-350 to cross the 6 DME fix at or above 1800', then turn left to intercept and proceed via the SFO R-342, to cross REBAS INT at or above 6000', Thence....

TAKE-OFF RUNWAYS 28L/R: Turn right heading 360° (or as assigned) to intercept and proceed via the SFO R-342 to REBAS INT. Cross REBAS INT at or above 6000'. Thence....

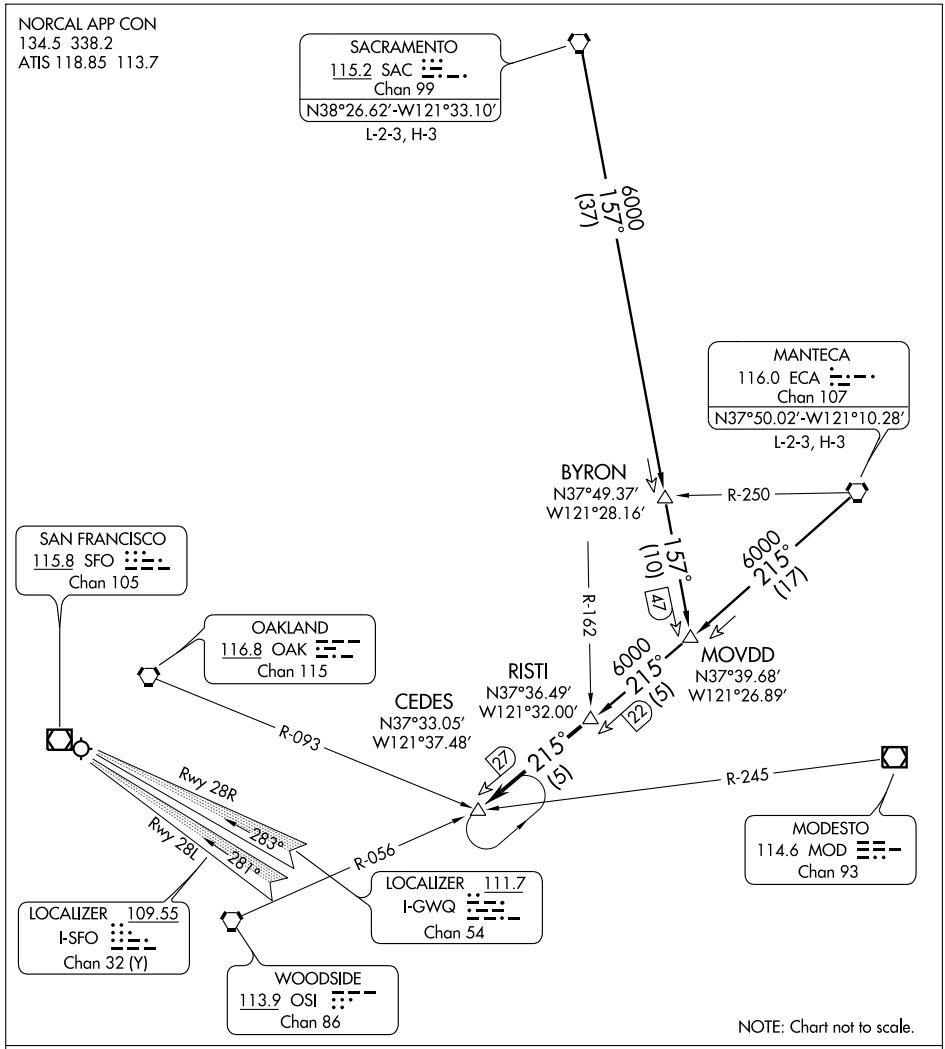
....via (transition) or (assigned route). Expect further clearance to filed altitude 10 minutes after departure.

CHICO TRANSITION (REBAS3.CIC): From over REBAS INT via SGD R-165 to SGD VORTAC then SGD R-347 and MXW R-170 to MXW VORTAC. Then via MXW R-014 to CIC VOR/DME.

MENDOCINO TRANSITION (REBAS3.ENI): From over REBAS INT via SGD R-165 to SGD VORTAC, then via SGD R-347 and MXW R-170 to DALON INT, then via ENI R-073 to ENI VORTAC.

RED BLUFF TRANSITION (REBAS3.RBL): From over REBAS INT via SGD R-165 to SGD VORTAC then via SGD R-347 and MXW R-170 to MXW VORTAC. Then via MXW R-341 and RBL R-161 to RBL VORTAC.

RISTI FOUR ARRIVAL



MANTECA TRANSITION (ECA.RISTI4): From over ECA VORTAC via ECA R-215 to RISTI INT. Thence . . . .

SACRAMENTO TRANSITION (SAC.RISTI4): From over SAC VORTAC via SAC R-157 and ECA R-215 to RISTI INT. Thence . . . .

. . . . From over RISTI INT via ECA R-215 to CEDES INT, then via radar vector to San Francisco Intl Airport.

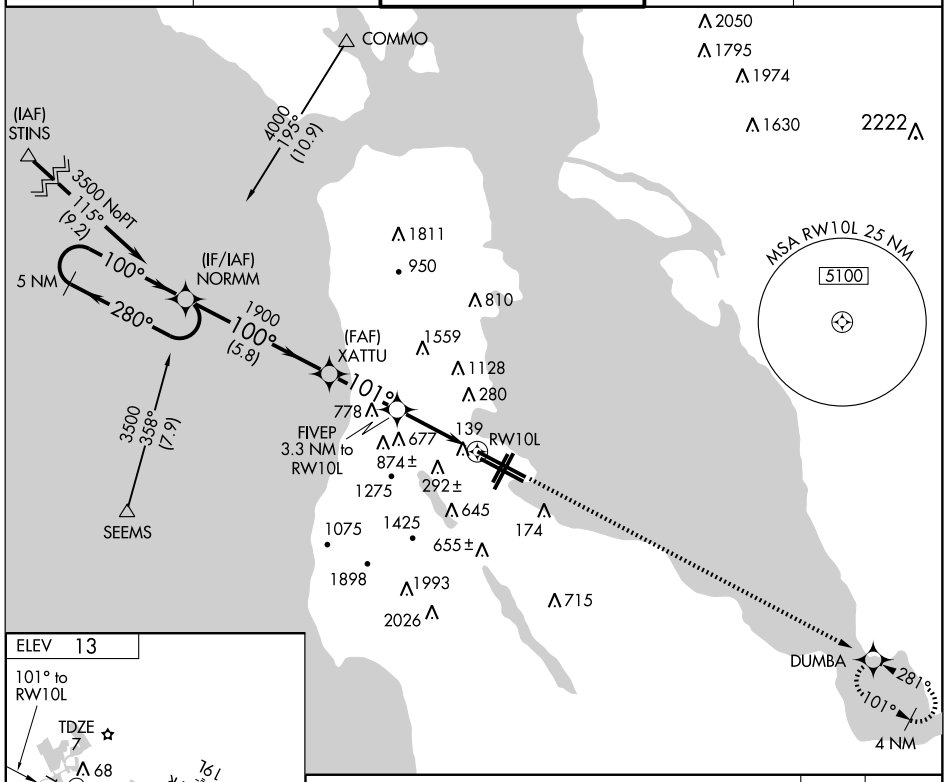
APP CRS	Rwy Idg	11870
101°	TDZE	7
	Apt Elev	13

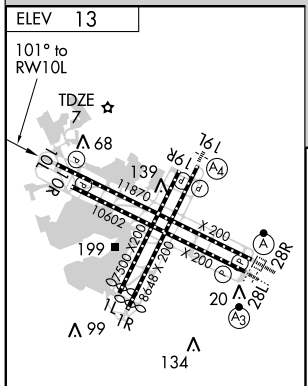
RNAV (GPS) RWY 10L
SAN FRANCISCO INTL (SFO)

NA GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

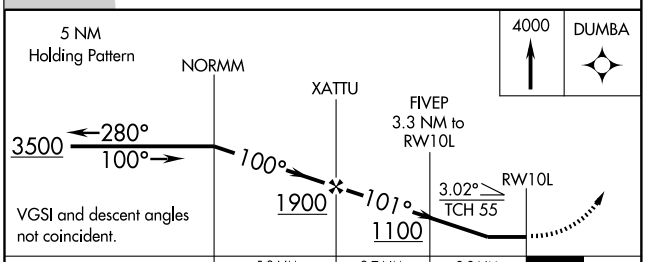
MISSED APPROACH: Climb to 4000 direct DUMBA WP and hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2





TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R, and 10L
HIRL all Rwys



CATEGORY	A	B	C	D
LNAV MDA	940/60	933 (1000-1¼)	940-2¾ 933 (1000-2¾)	940-3 933 (1000-3)
CIRCLING	940-1¼	927 (1000-1¼)	1040-3 1027 (1100-3)	1160-3 1147 (1200-3)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	10602
CH 53415	281°	TDZE	13
W28B		Apt Elev	13

RNAV (GPS) RWY 28L

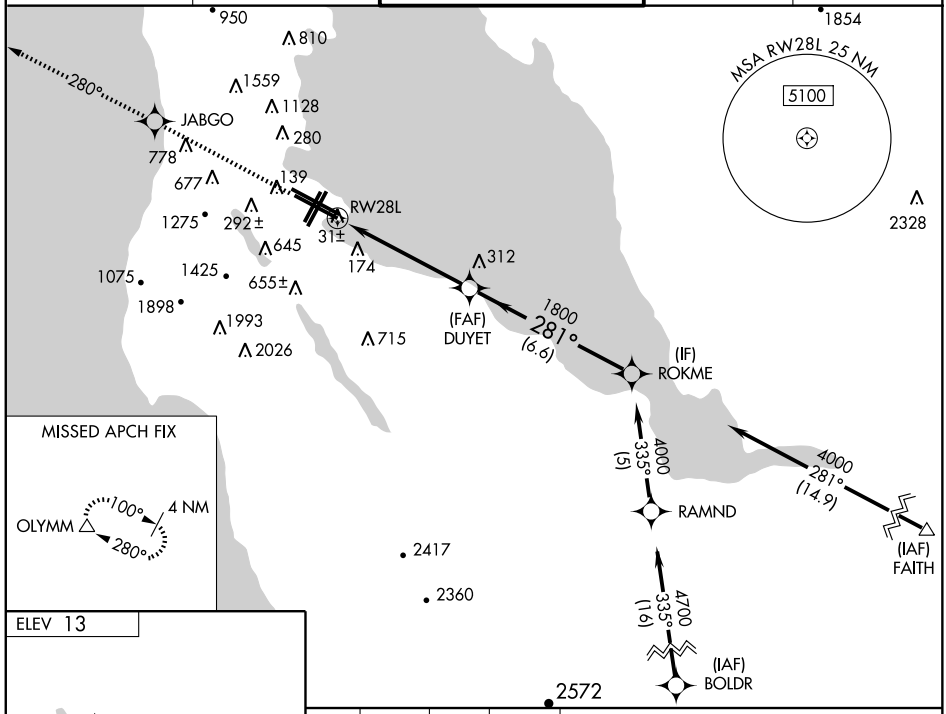
SAN FRANCISCO INTL (SFO)

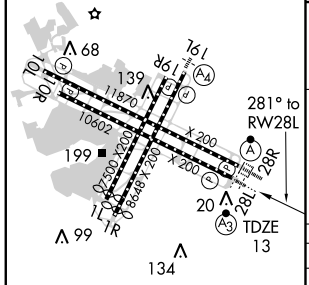
▼ Inoperative table does not apply to LNAV/VNAV all Cats.
▲ For inoperative SSALR, increase LPV all Cats visibility to RVR 5000.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F).
DME/DME RNP-0.3 NA.

SSALR (A3)

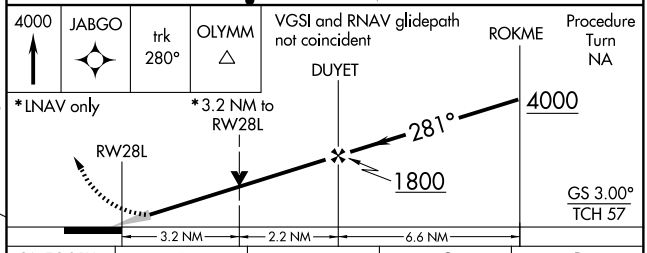
MISSED APPROACH: Climb to 4000 direct JABGO and via track 280° to OLYMM and hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2





TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L
HIRL all Rwys



CATEGORY	A	B	C	D
LPV DA	287/24 274 (300-½)			
LNAV/VNAV DA	945-4 932 (1000-4)			
LNAV MDA	1120/40 1107 (1200-¾)	1120/50 1107 (1200-1)	1120-2½ 1107 (1200-2½)	
CIRCLING	1120-1¼ 1107 (1200-1¼)	1120-1½ 1107 (1200-1½)	1120-3 1107 (1200-3)	1160-3 1147 (1200-3)

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	10602
101°	TDZE	9
	Apt Elev	13

RNAV (GPS) X RWY 10R

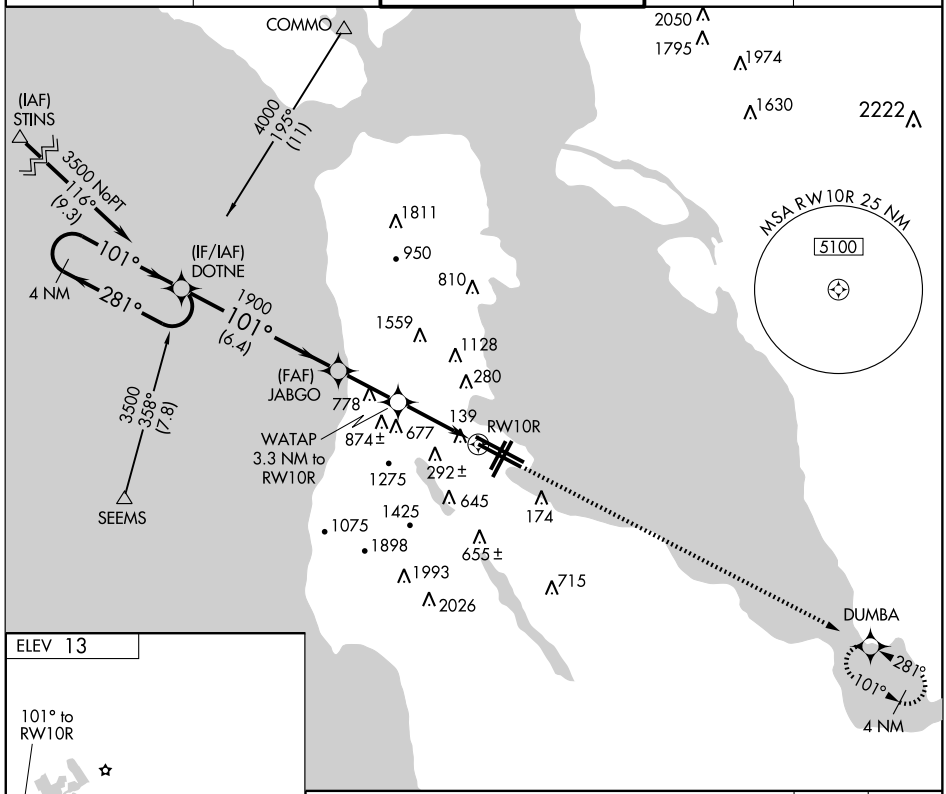
SAN FRANCISCO INTL (SFO)

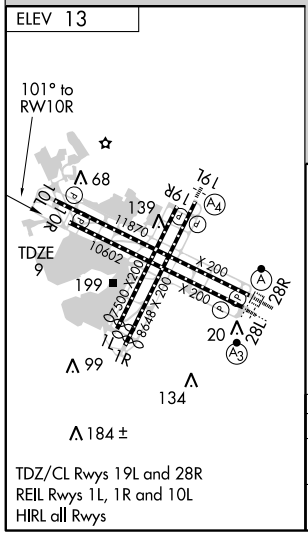
NA

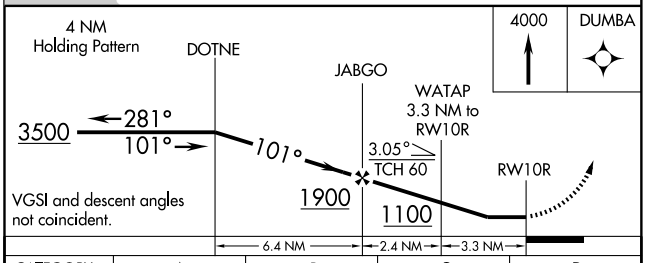
DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 4000 direct DUMBA and hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2







CATEGORY	A	B	C	D
LNAV MDA	980/60 971 (1000-1¼)	980-1½ 971 (1000-1½)	980-3 971 (1000-3)	
CIRCLING	980-1¼ 967 (1000-1¼)	980-1½ 967 (1000-1½)	1040-3 1027 (1100-3)	1160-3 1147 (1200-3)

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	8648
191°	TDZE	11
	Apt Elev	13

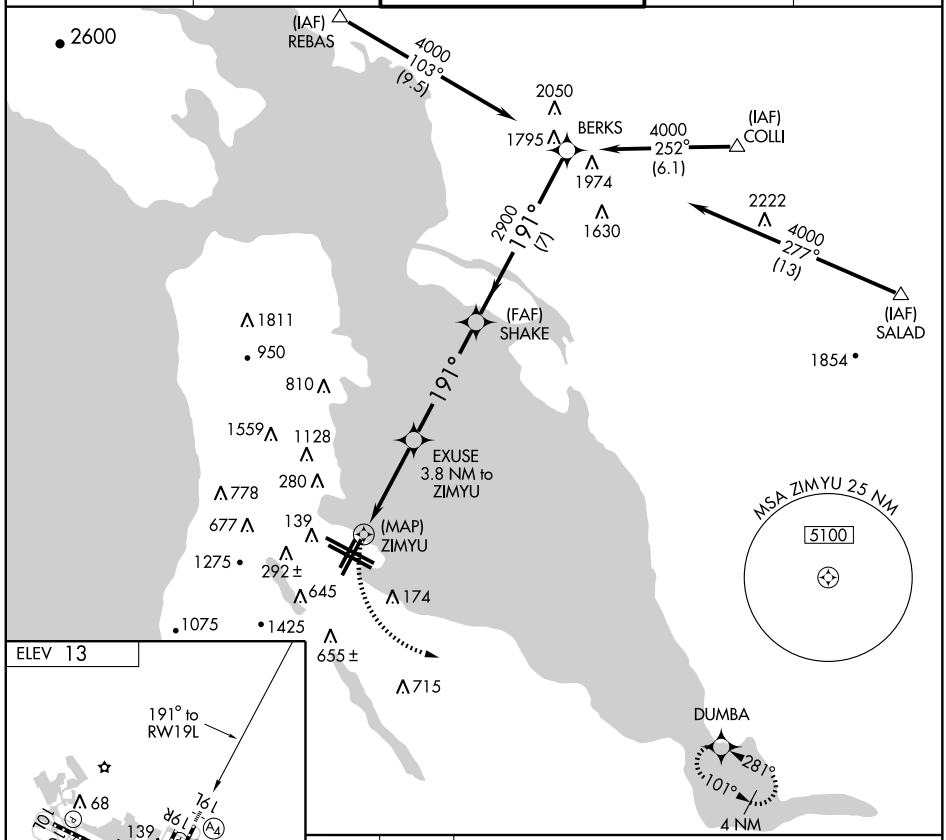
RNAV (GPS) Y RWY 19L
SAN FRANCISCO INTL (SFO)

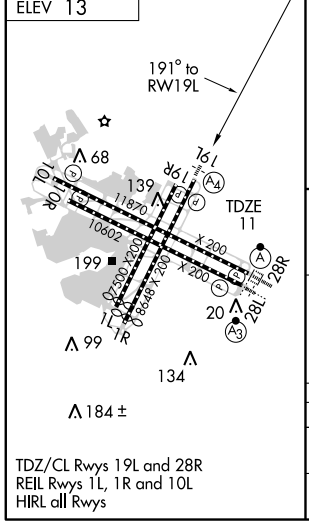
NA GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

SSALS

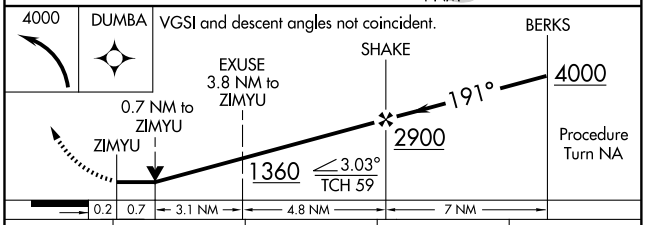
MISSED APPROACH: Climbing left turn to 4000 direct to DUMBA WP and hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2





TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L
HIRL all Rwys



CATEGORY	A	B	C	D
LNAV MDA	360/40 349 (400-¾)			360/60 349 (400-1¼)
CIRCLING	760-1 747 (800-1)	940-1¼ 927 (1000-1¼)	1040-3 1027 (1100-3)	1160-3 1147 (1200-3)

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	7500
191°	TDZE	10
	Apt Elev	13

RNAV (GPS) Y RWY 19R

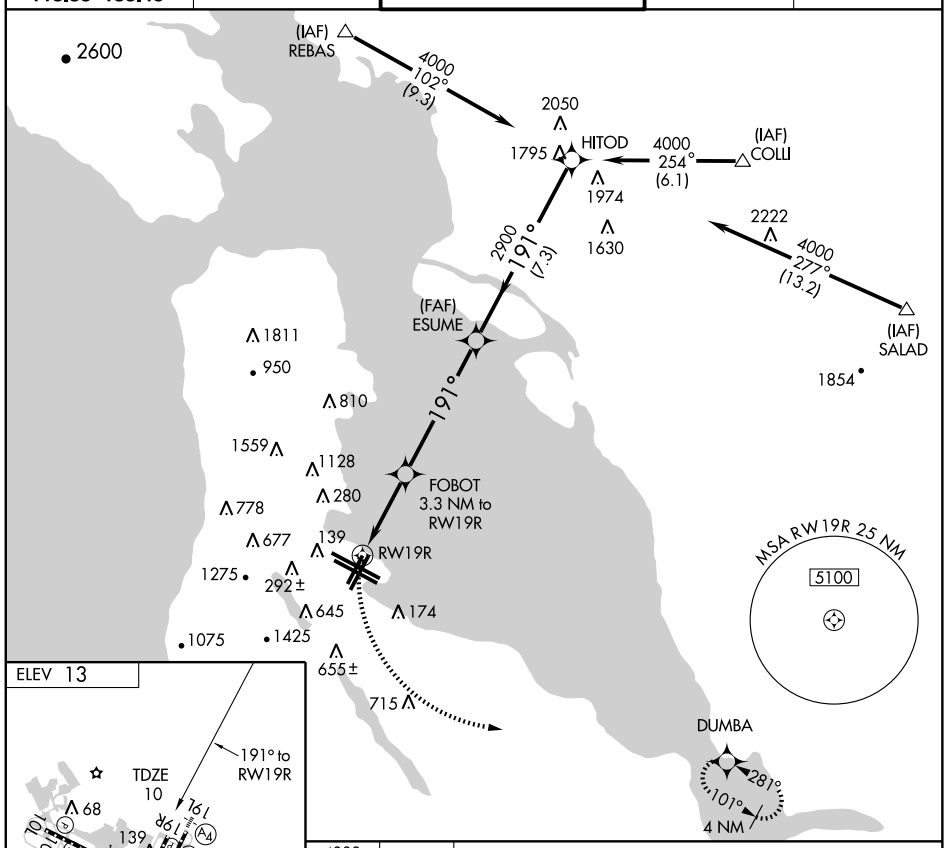
SAN FRANCISCO INTL (SFO)

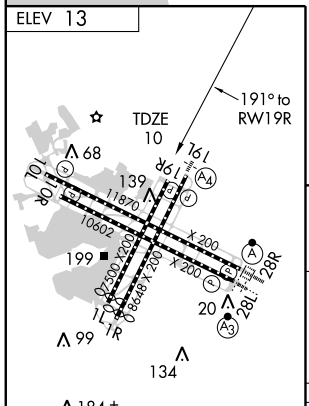
NA

GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

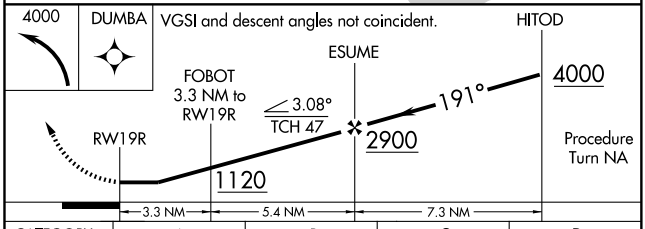
MISSED APPROACH: Climbing left turn to 4000 direct to DUMBA WP and hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2





TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L
HIRL all Rwys



CATEGORY	A	B	C	D
LNAV MDA	400/50 390 (400-1)			400/60 390 (400-1¼)
CIRCLING	760-1 747 (800-1)	940-1¼ 927 (1000-1¼)	1040-3 1027 (1100-3)	1160-3 1147 (1200-3)

SW-2, 14 JAN 2010 to 11 FEB 2010

RNAV (GPS) Z RWY 10R
SAN FRANCISCO INTL (SFO)

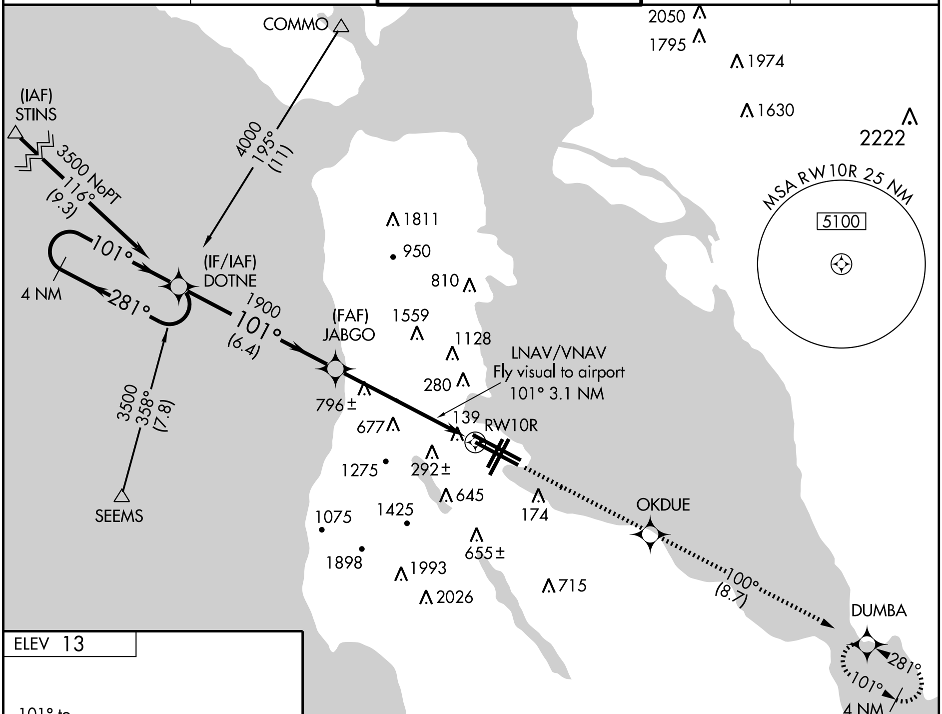
APP CRS	Rwy ldg	10602
101°	TDZE	9
	Apt Elev	13

T A NA W

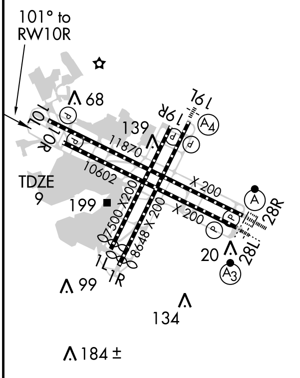
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.
Baro-VNAV NA below -15°C (5°F).
LNAV/VNAV: Fly visual to airport 101°- 3.1 NM.

MISSED APPROACH: Climb to 4000 direct OKDUE WP and left turn via 100° track to DUMBA WP and hold.

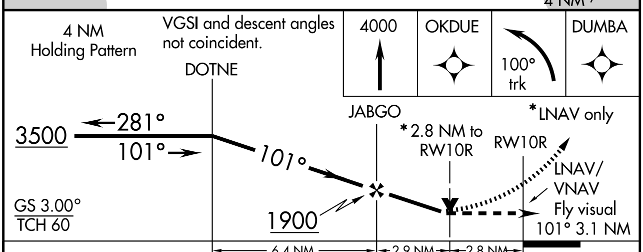
ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2



ELEV 13



TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L
HIRL all Rwys



CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/ VNAV DA	1060-2 1051 (1100-2)		1060-3 1051 (1100-3)	
LNAV MDA	1060/60 1051 (1100-1¼)	1060-1½ 1051 (1100-1½)	1060-3 1051 (1100-3)	
CIRCLING	1060-2 1047 (1100-2)		1060-3 1047 (1100-3)	1160-3 1147 (1200-3)

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN FRANCISCO, CALIFORNIA

AL-375 (FAA)

09295

RNAV (GPS) Z RWY 19L

SAN FRANCISCO INTL (SFO)

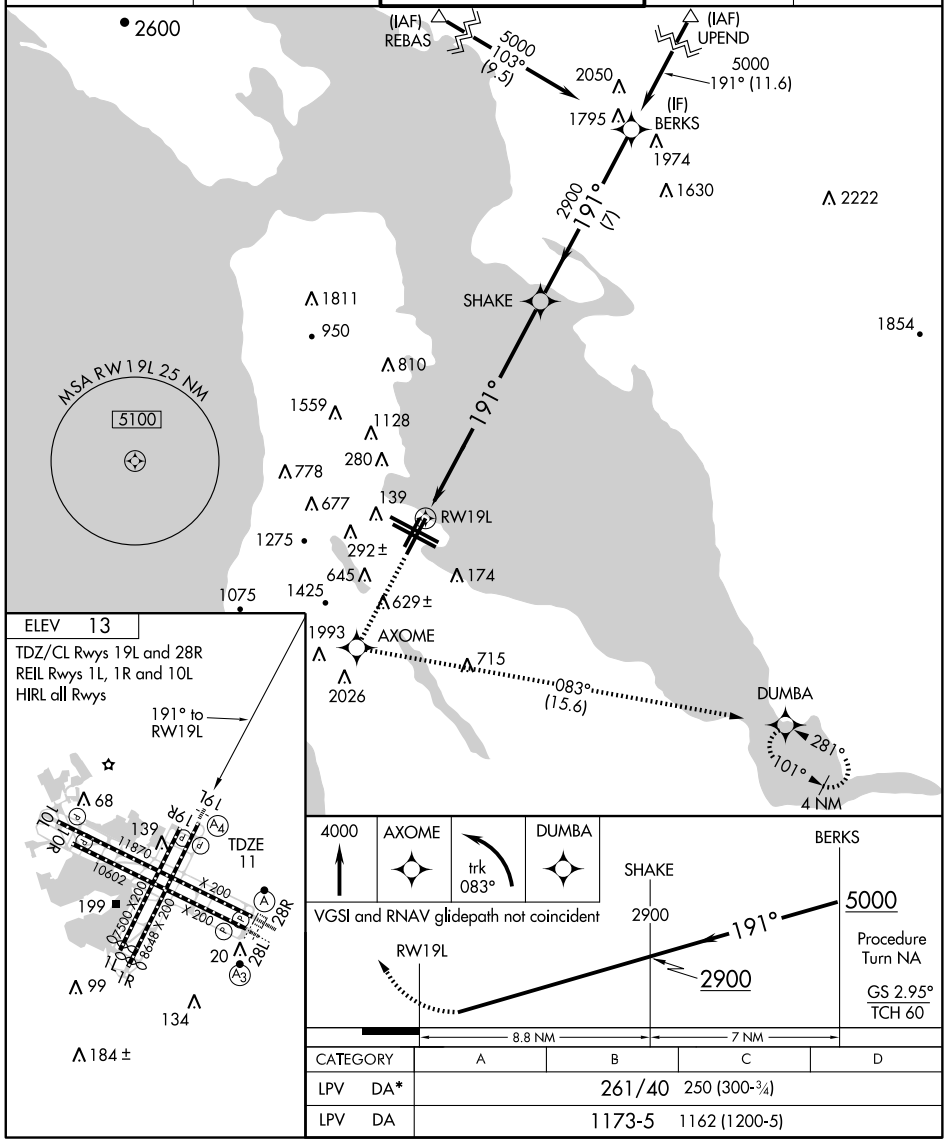
WAAS	APP CRS	Rwy Idg	8648
CH 58015	191°	TDZE	11
W19A		Apt Elev	13

DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA.
*Missed approach requires minimum climb of 400 feet per NM to 2900.

SSALS

MISSED APPROACH: Climb to 4000 direct AXOME and left turn via track 083° to DUMBA and hold, continue climb-in-hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2



ELEV 13

TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L
HIRL all Rwys

CATEGORY	A	B	C	D
LPV DA*	261/40	250 (300-¾)		
LPV DA	1173-5	1162 (1200-5)		

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	7500
191°	TDZE	10
	Apt Elev	13

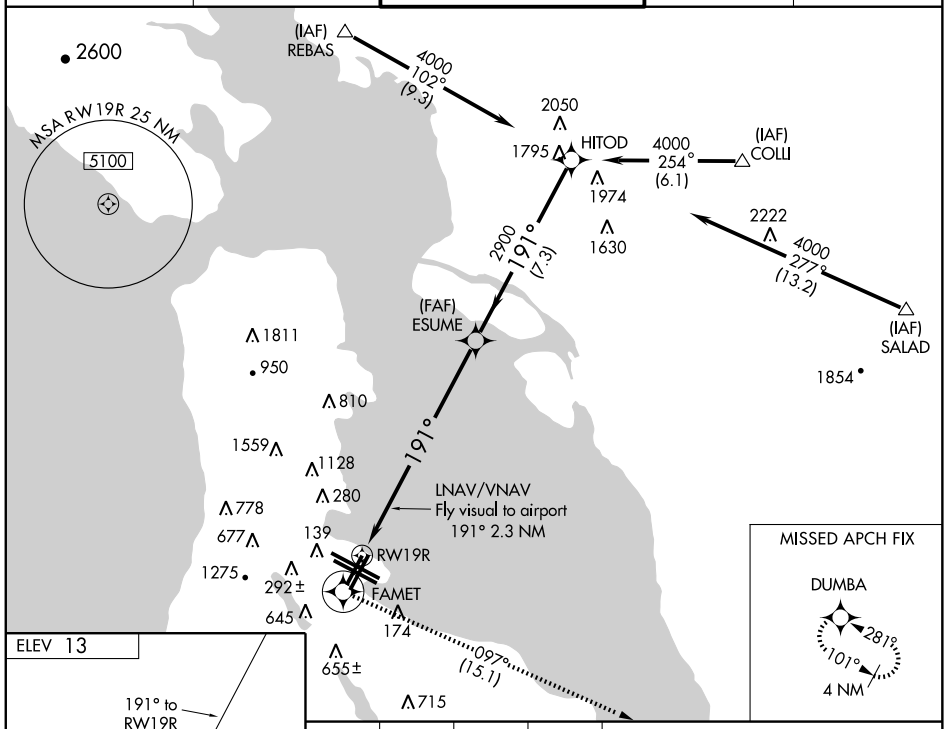
RNAV (GPS) Z RWY 19R
SAN FRANCISCO INTL (SFO)

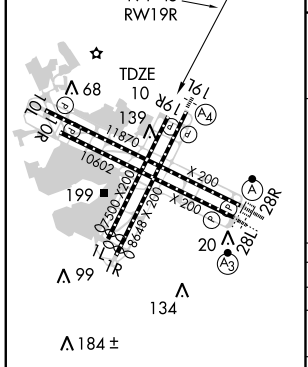
T
ANA
W

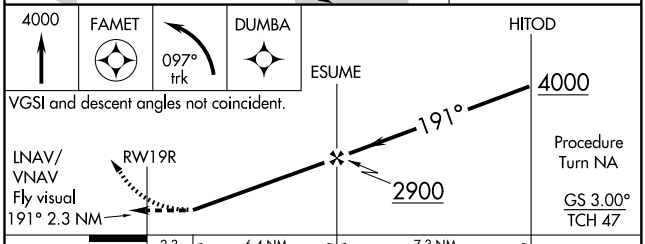
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.
Baro-VNAV NA below -15°C (5°F).
LNAV/VNAV: Fly visual to airport 191° - 2.3 NM.

MISSED APPROACH: Climb to 4000 direct FAMET WP and left turn via 097° track to DUMBA WP and hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2







CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	800-2 790 (800-2)		800-2¼ 790 (800-2¼)	800-2½ 790 (800-2½)
LNAV MDA	1060/60 1050 (1100-1¼)	1060-1½ 1050 (1100-1½)	1060-3 1050 (1100-3)	
CIRCLING	1060-2 1047 (1100-2)		1060-3 1047 (1100-3)	1160-3 1147 (1200-3)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	11870
CH 81828	281°	TDZE	13
W28A		Apt Elev	13

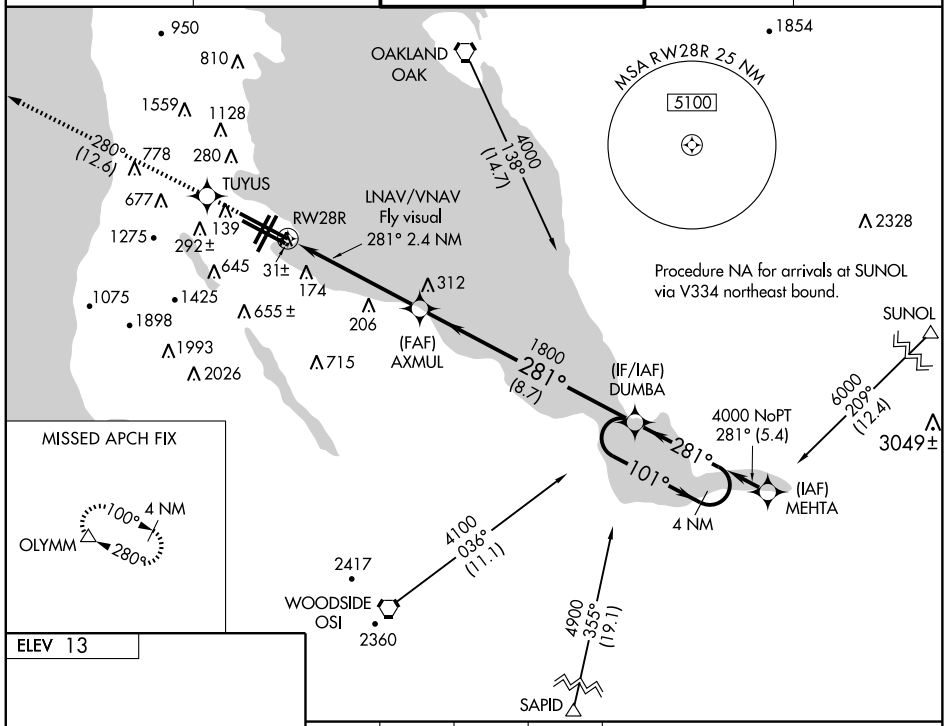
RNAV (GPS) Z RWY 28R
SAN FRANCISCO INTL (SFO)

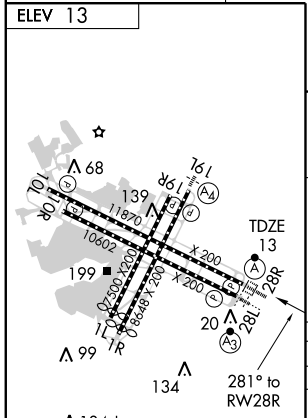
DME/DME RNP-0.3 NA.
Baro-VNAV NA below -15°C (5°F).
Inoperative table does not apply to LNAV/VNAV.
For inoperative ALSF, increase LPV all Cats visibility to RVR 4000.

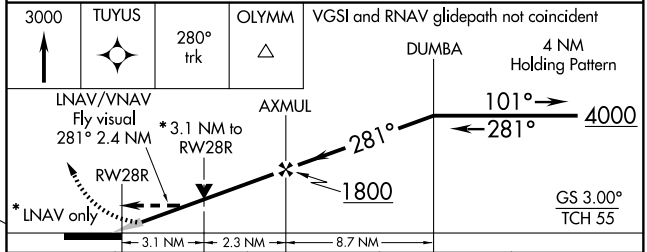
ALSF-2

MISSED APPROACH: Climb to 3000 direct TUYUS and via 280° track to OLYMM and hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2







CATEGORY	A	B	C	D
LPV DA	263/24 250 (300-½)			
LNAV/VNAV DA	822-2 809 (900-2)		822-2¼ 809 (900-2¼)	822-2½ 809 (900-2½)
LNAV MDA	1040/40 1027 (1100-¾)	1040/50 1027 (1100-1)	1040-2½ 1027 (1100-2½)	
CIRCLING	1040-1¼ 1027 (1100-1¼)	1040-1½ 1027 (1100-1½)	1040-3 1027 (1100-3)	1160-3 1147 (1200-3)

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	10602
101°	TDZE	9
	Apt Elev	13

RNAV (RNP) Y RWY 10R

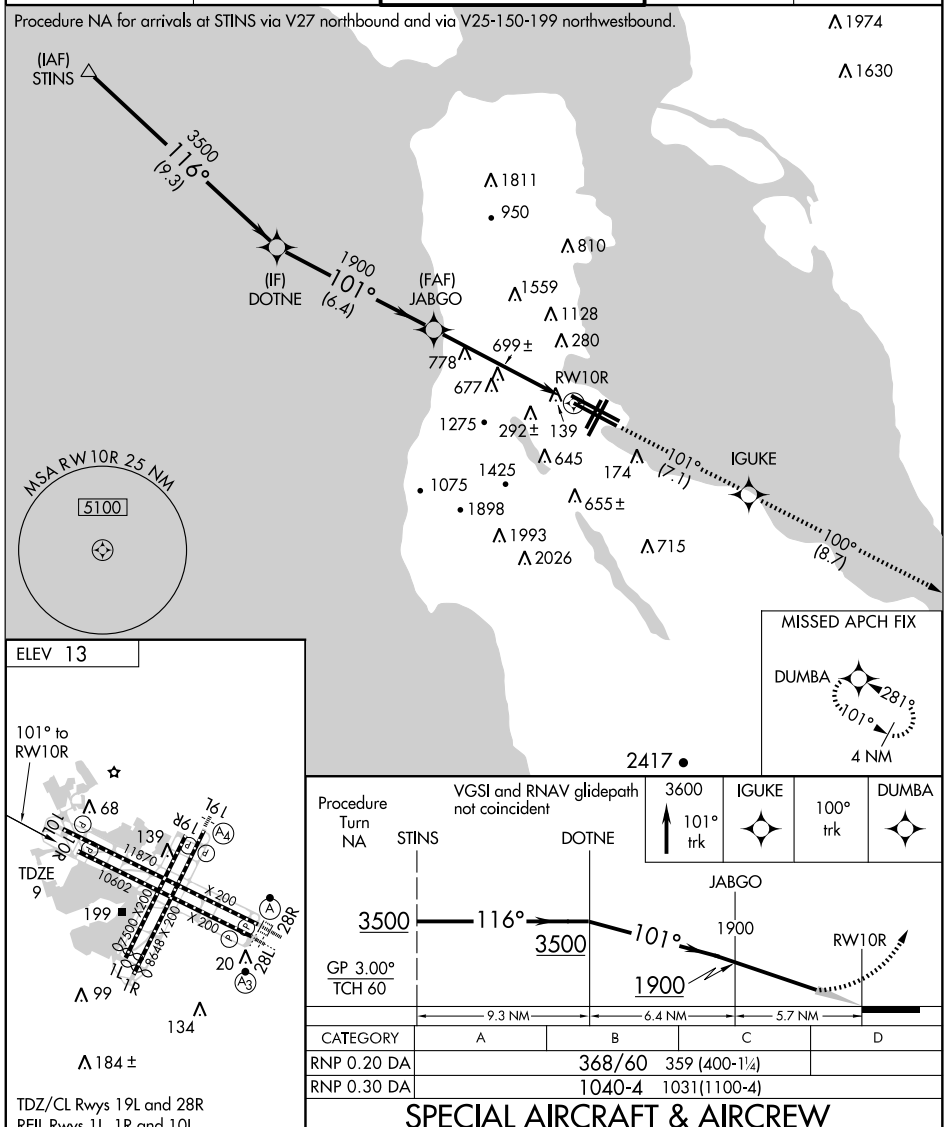
SAN FRANCISCO INTL (SFO)

GPS required.
For uncompensated Baro-VNAV systems, procedure NA below 2° C (36° F) or above 48° C (120° F).

MISSED APPROACH: Climb to 3600 via 101° track to IGUKE and via 100° track to DUMBA and hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2

Procedure NA for arrivals at STINS via V27 northbound and via V25-150-199 northwestbound.



CATEGORY	A	B	C	D
RNP 0.20 DA	368/60 359 (400-1¼)			
RNP 0.30 DA	1040-4 1031(1100-4)			

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	11870
281°	TDZE	13
	Apt Elev	13

RNAV (RNP) Y RWY 28R

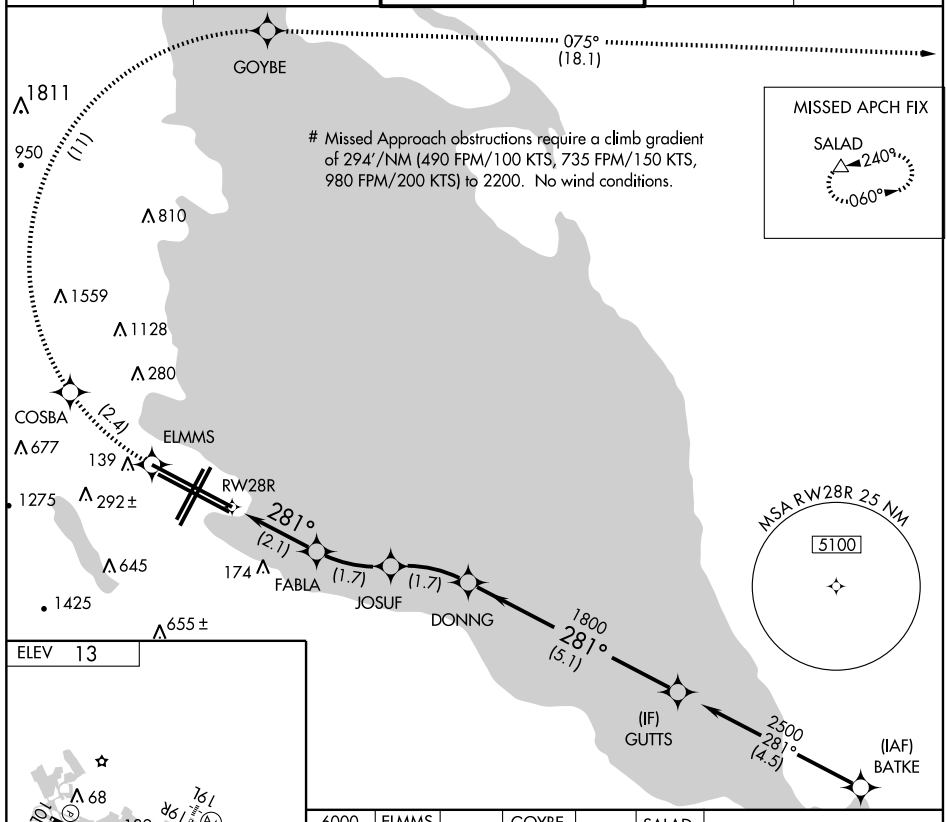
SAN FRANCISCO INTL (SFO)

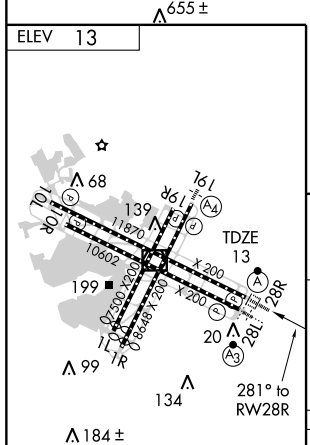
T A NA For uncompensated Baro-VNAV systems, procedure NA below 2°C (36°F) or above 48°C (119°F). For inoperative ALSF increase RNP 0.30 visibility to RVR 5000 all Cats. RF, GPS, and RADAR REQUIRED.

ALSF-2

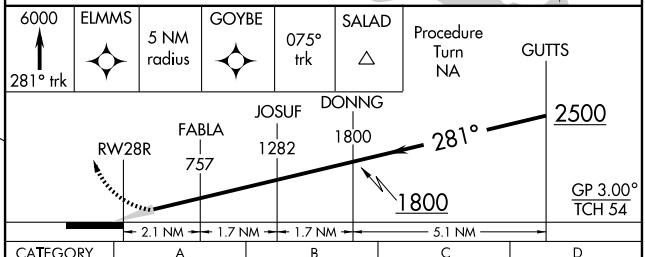
MISSED APPROACH: Climb to 6000 via 281° track to ELMMS and via 5 NM radius to GOYBE and via 075° track to SALAD and hold. #

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2





TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L
HIRL all Rwys



CATEGORY	A	B	C	D
RNP 0.30 DA	328/32	315 (400-⅝)		

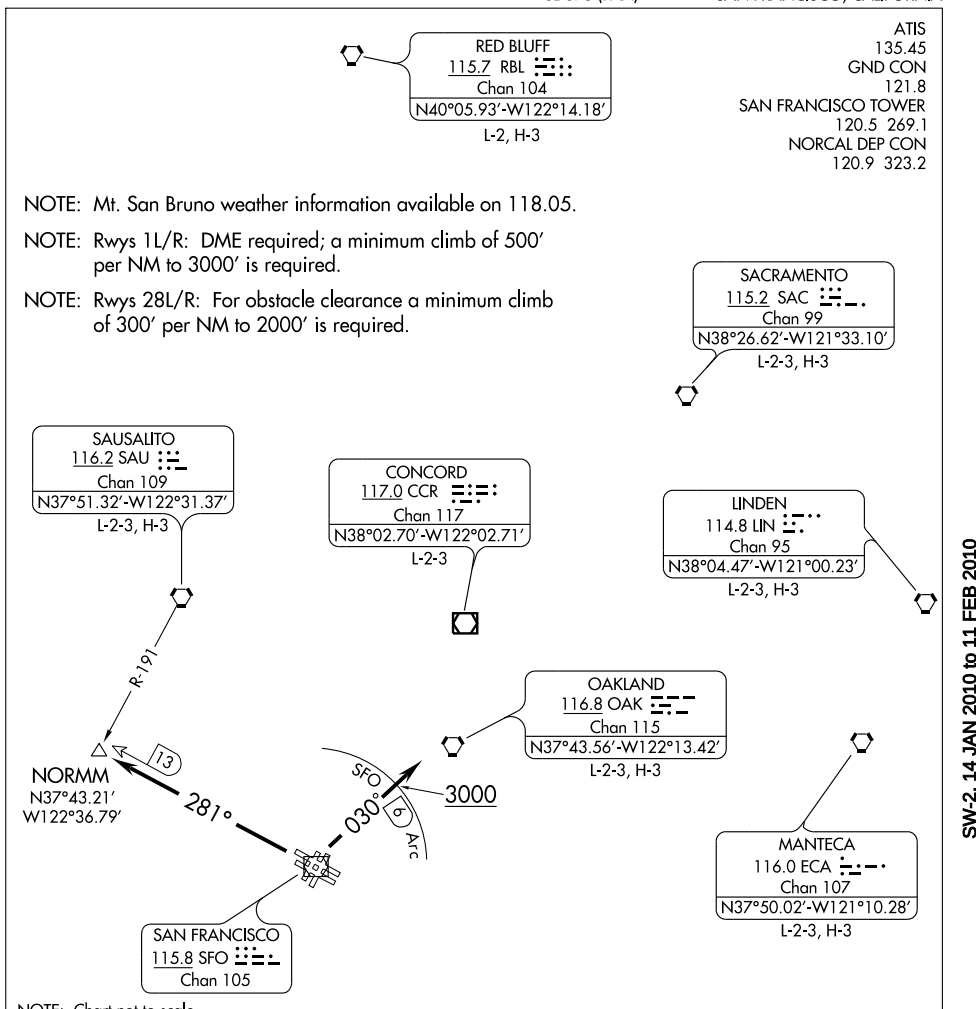
SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN FRANCISCO EIGHT DEPARTURE

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA



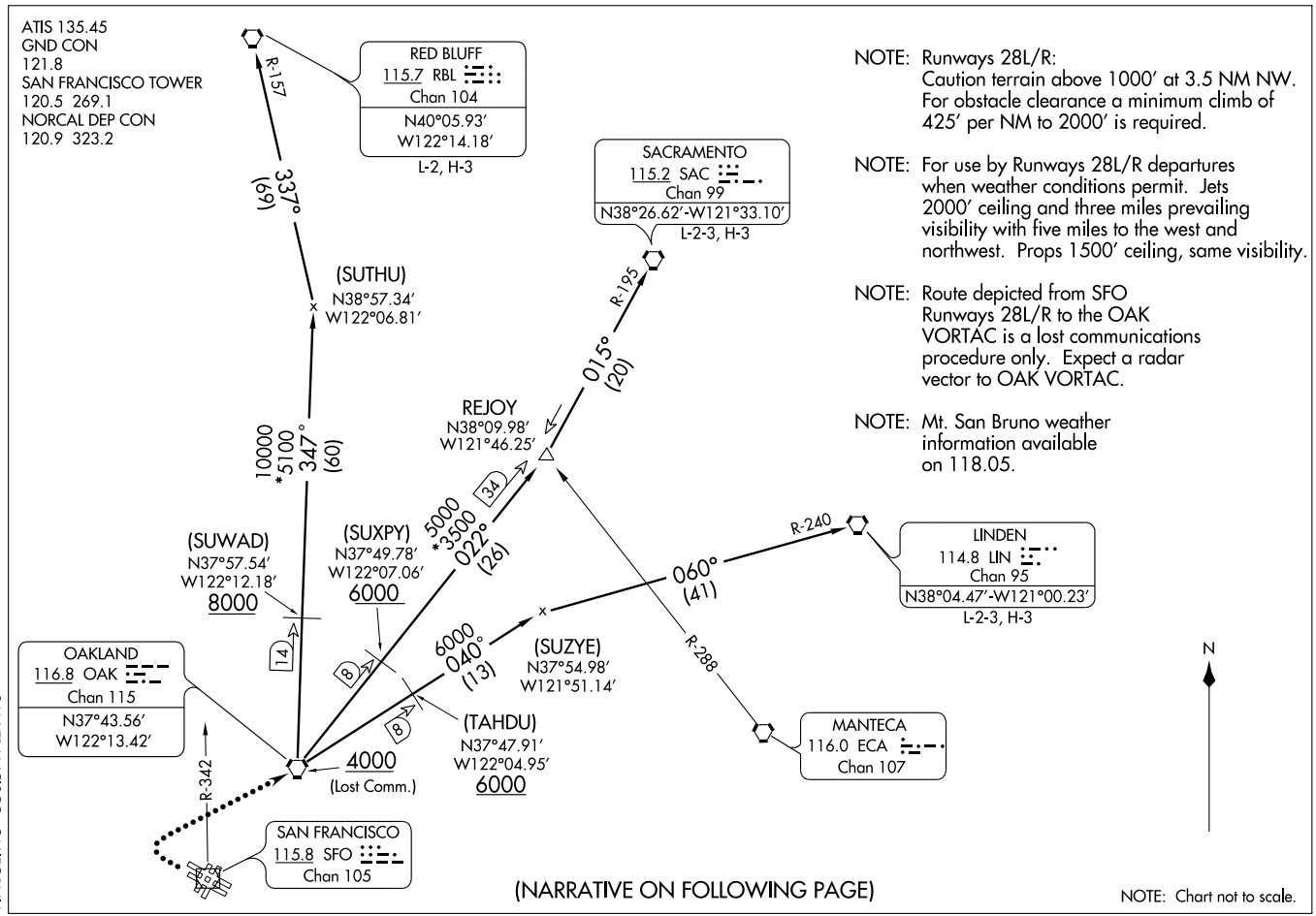
DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 1L/R: Climb via heading 030° or as assigned for vector to assigned route/fix. Expect further clearance to filed altitude 10 minutes after departure.

TAKE-OFF RUNWAYS 28L/R: Climb via SFO R-281 to NORMM INT; expect vector to assigned route/fix after NORMM INT. Expect further clearance to filed altitude 10 minutes after departure.

LOST COMMUNICATIONS:
All runways: If not in contact with departure control after reaching 3000', continue climb to filed altitude and proceed direct to assigned route/fix.

SW-2, 14 JAN 2010 to 11 FEB 2010



SHORELINE ONE DEPARTURE (SHOR1.OAK) 09127

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 28L/R: Turn right heading 040° or as assigned, for vector to OAK VORTAC. Then via (transition) or (assigned route). Expect further clearance to filed altitude 10 minutes after departure.

LOST COMMUNICATIONS:
Take-off runways 28L/R: If not in contact with departure control one minute after crossing the SFO R-342, proceed direct to OAK VORTAC. Cross OAK VORTAC at or above 4000′.

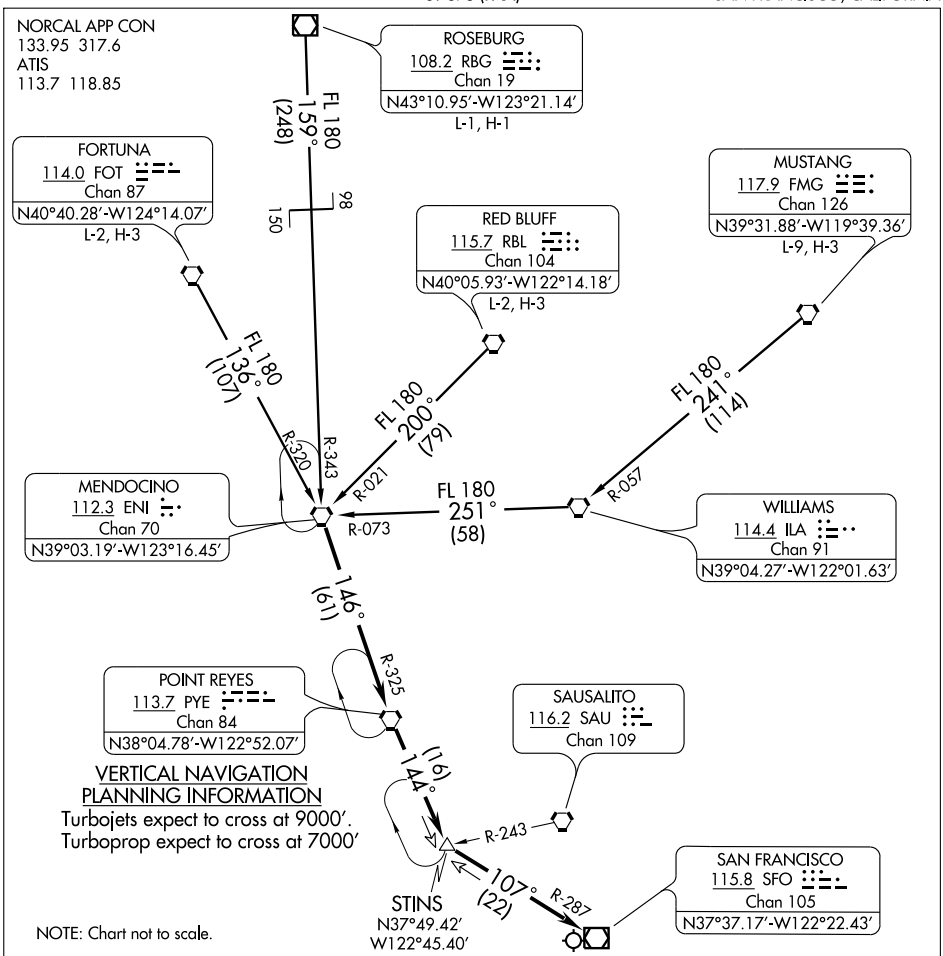
LINDEN TRANSITION (SHOR1.LIN): Climb via OAK R-040 and LIN R-240 to LIN VORTAC. Cross the OAK R-040 8 DME fix at or above 6000′. Thence via (assigned route).

RED BLUFF TRANSITION (SHOR1.RBL): Climb via OAK R-347 and RBL R-157 to RBL VORTAC. Cross the OAK R-347 14 DME fix at or above 8000′. Maintain (assigned altitude) or (flight level). Thence via (assigned route).

SACRAMENTO TRANSITION (SHOR1.SAC): Climb via OAK R-022 and SAC R-195 to SAC VORTAC. Cross the OAK R-022 8 DME fix at or above 6000′. Maintain (assigned altitude) or (flight level). Thence via (assigned route).

SW-2, 14 JAN 2010 to 11 FEB 2010

STINS ONE ARRIVAL



FORTUNA TRANSITION (FOT.STINS1): From over FOT VORTAC via FOT R-136 and ENI R-320 to ENI VORTAC. Thence....

MUSTANG TRANSITION (FMG.STINS1): From over FMG VORTAC via FMG R-241 and ILA R-057 to ILA VORTAC, then via ILA R-251 and ENI R-073 to ENI VORTAC. Thence....

RED BLUFF TRANSITION (RBL.STINS1): From over RBL VORTAC via RBL R-200 and ENI R-021 to ENI VORTAC. Thence....

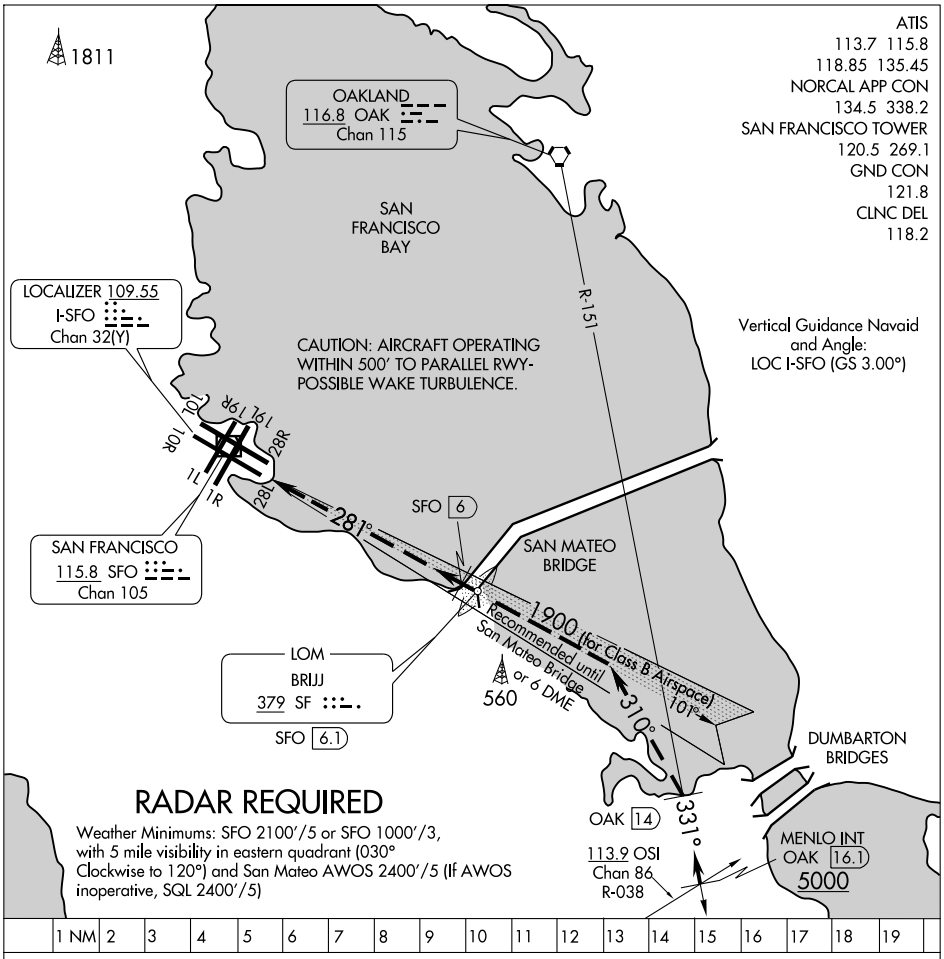
ROSEBURG TRANSITION (RBG.STINS1): From over RBG VOR/DME via RBG R-159 and ENI R-343 to ENI VORTAC. Thence....

.... From over ENI VORTAC via ENI R-146 and PYE R-325 to PYE VORTAC, thence via PYE R-144 to STINS INT, thence via SFO R-287 to SFO VOR/DME. Expect vector to final approach course.

TIPP TOE VISUAL RWY 28L

AL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA



RADAR REQUIRED

Weather Minimums: SFO 2100'/5 or SFO 1000'/3, with 5 mile visibility in eastern quadrant (030° Clockwise to 120°) and San Mateo AWOS 2400'/5 (If AWOS inoperative, SQL 2400'/5)

TIPP TOE VISUAL APPROACH RUNWAY 28L

When visual approaches to Runway 28L are in progress, arriving aircraft may be cleared for a visual approach via the OAK VOR R-151 and I-SFO localizer.

The OAK VOR and DME and I-SFO must be operating.

Aircraft should cross the OAK R-151/16.1 DME (Menlo Int) at or above 5000 and the San Mateo Bridge at or above 1900.

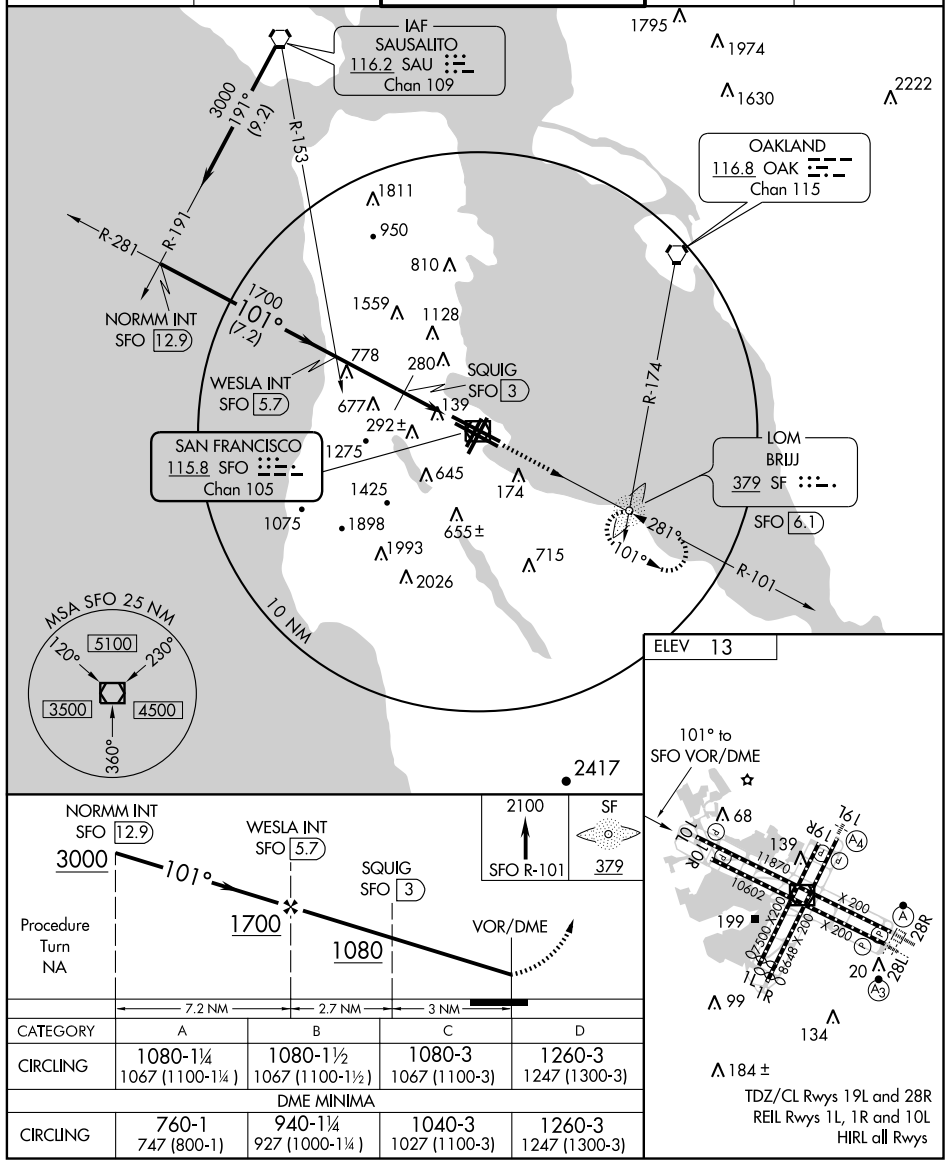
NOTE: Closely spaced parallel visual approaches may be in progress to Runway 28R utilizing the SFO R-095. In the event of a go-around on Runway 28L, turn left heading 265°, climb and maintain 3000, or as directed by Air Traffic Control.

VOR/DME SFO	APP CRS	Rwy Idg	N/A
115.8	101°	TDZE	N/A
Chan 105		Apt Elev	13

VOR or GPS-B
SAN FRANCISCO INTL (SFO)

MISSED APPROACH: Climb to 2100 via SFO R-101 to BRIJJ Int/LOM and hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2



CATEGORY	A	B	C	D
CIRCLING	1080-1¼ 1067 (1100-1¼)	1080-1½ 1067 (1100-1½)	1080-3 1067 (1100-3)	1260-3 1247 (1300-3)
DME MINIMA				
CIRCLING	760-1 747 (800-1)	940-1¼ 927 (1000-1¼)	1040-3 1027 (1100-3)	1260-3 1247 (1300-3)

TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L
HIRL all Rwys

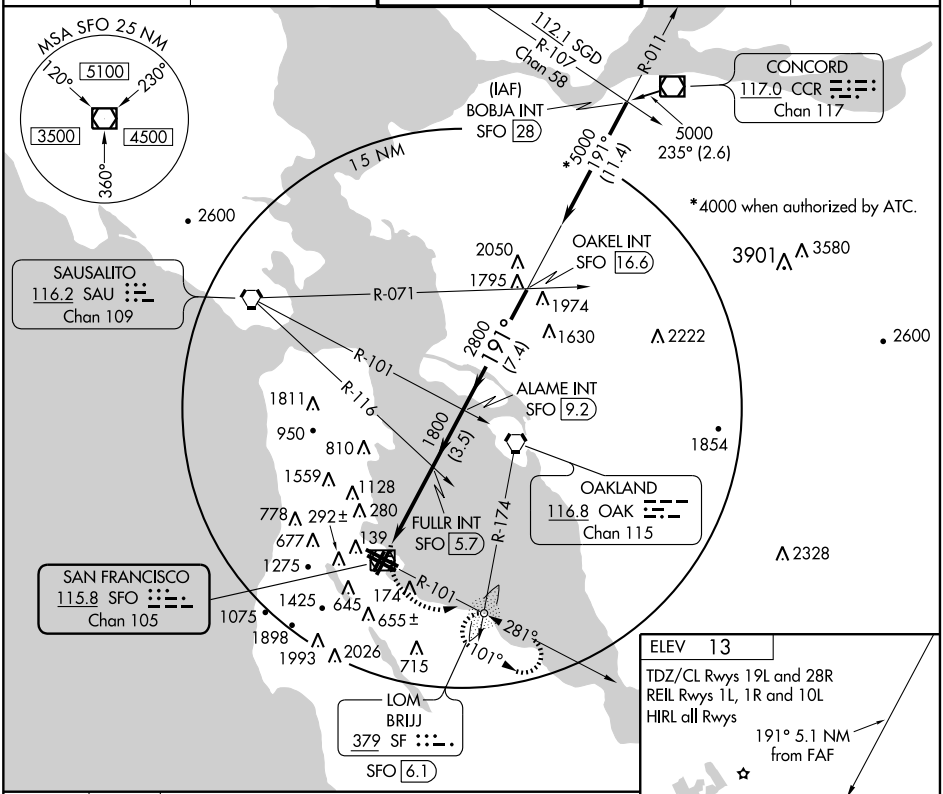
VOR/DME SFO	APP CRS	Rwy Idg	8648
115.8	191°	TDZE	11
Chan 105		Apt Elev	13

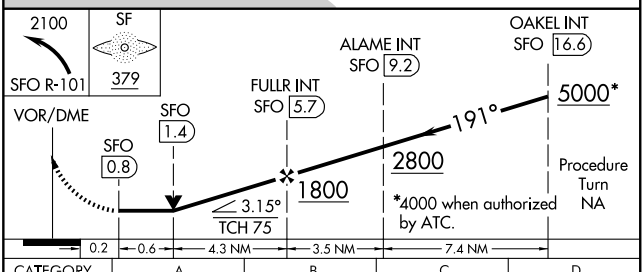
VOR RWY 19L
SAN FRANCISCO INTL (SFO)

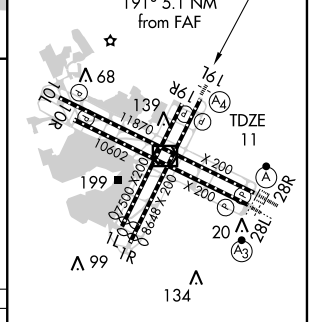
SSALS

MISSED APPROACH: Climbing left turn to 2100 via SFO R-101 to BRIJJ INT/LOM and hold.

ATIS	NORCAL APP CON	SAN FRANCISCO TOWER	GND CON	CLNC DEL
113.7 115.8 118.85 135.45	134.5 338.2	120.5 269.1	121.8	118.2







CATEGORY	A	B	C	D
S-19L	340/40 329 (400-¾)			340/50 329 (400-1)
CIRCLING	760-1 747 (800-1)	940-1¼ 927 (1000-1¼)	1040-3 1027 (1100-3)	1260-3 1247 (1300-3)

FAF to MAP 4.9 NM

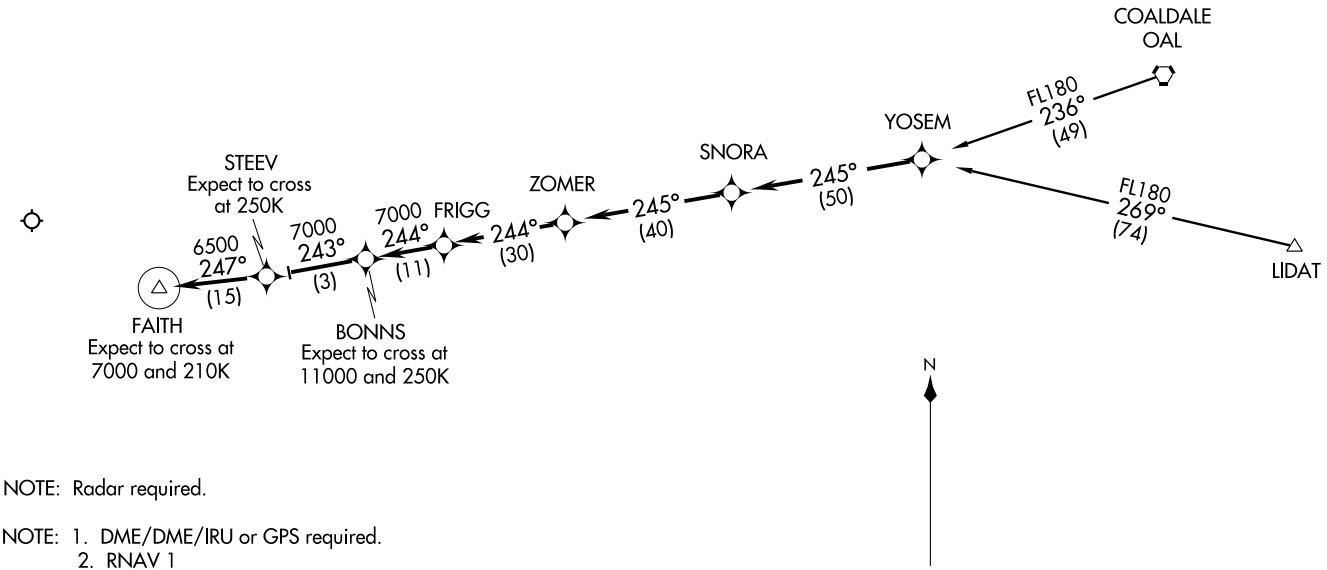
Knots	60	90	120	150	180
Min:Sec	4:54	3:16	2:27	1:58	1:38

SW-2, 14 JAN 2010 to 11 FEB 2010

COALDALE TRANSITION (OAL.YOSEM1)
LIDAT TRANSITION (LIDAT.YOSEM1)

From YOSEM via 245° track to SNORA, thence as depicted to FAITH. Expect radar vectors to final approach course.

ATIS
113.7 118.85
NORCAL APP CON
128.325 254.3



NOTE: Radar required.

NOTE: 1. DME/DME/IRU or GPS required.
2. RNAV 1

NOTE: Chart not to scale.

(YOSEM.YOSEM1) 08101

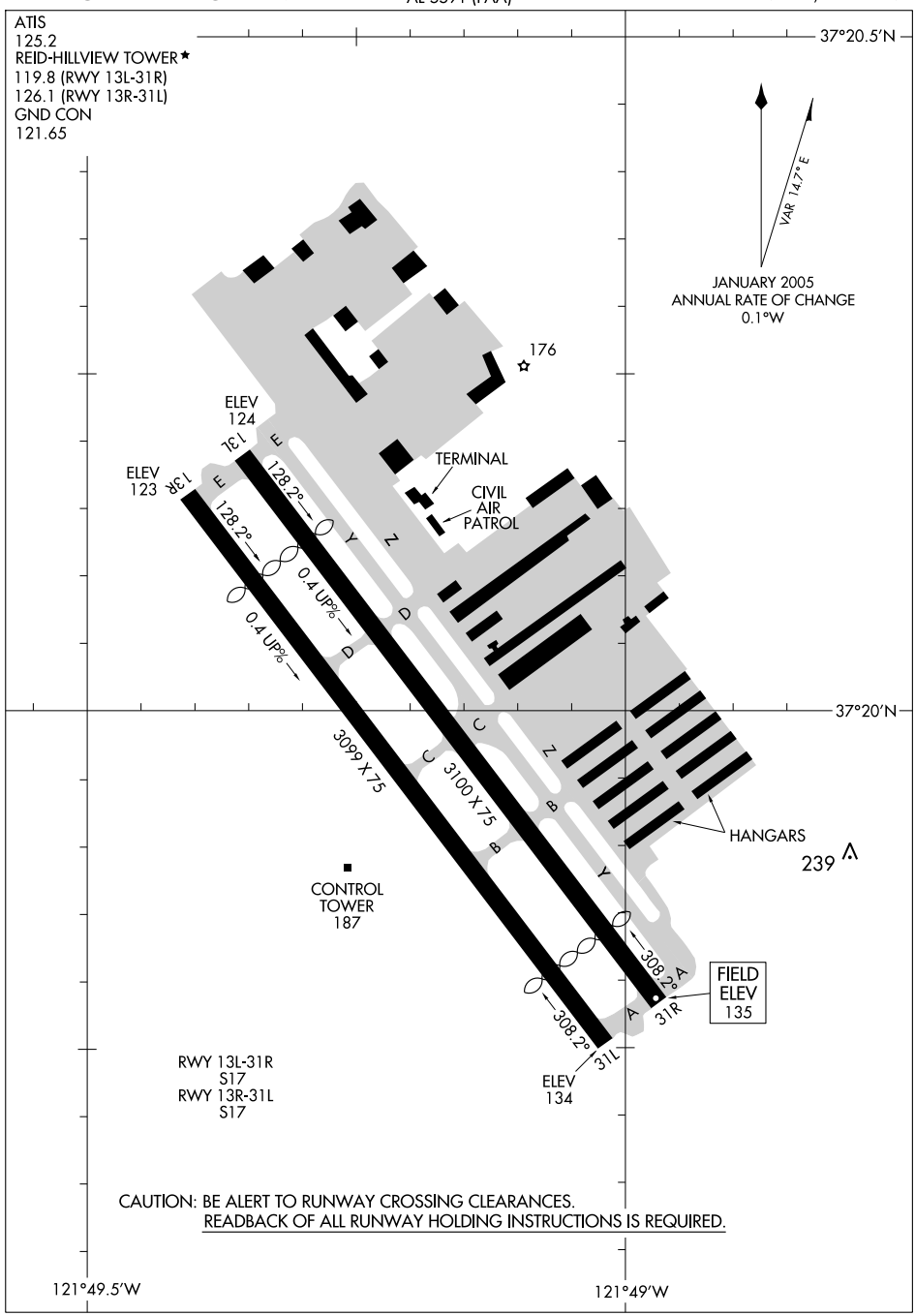
YOSEM ONE ARRIVAL (RNAV)

ST-375 (FAA)

SAN FRANCISCO INTL
SAN FRANCISCO, CALIFORNIA

AIRPORT DIAGRAM

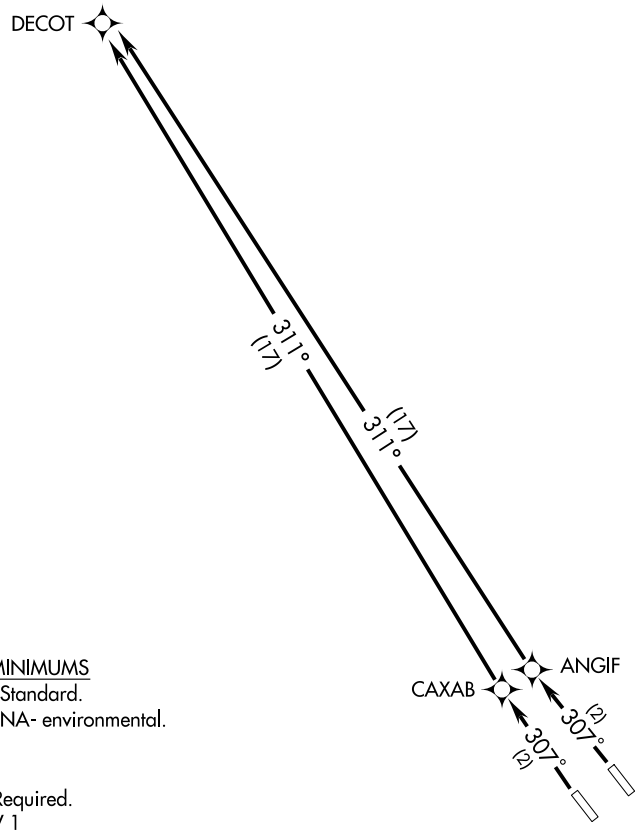
SAN JOSE/REID-HILLVIEW OF SANTA CLARA COUNTY (RHV)
AL-5591 (FAA)
SAN JOSE, CALIFORNIA



SW-2, 14 JAN 2010 to 11 FEB 2010

DECOT ONE DEPARTURE (RNAV) (OBSTACLE) SL-5591 (FAA)

NORCAL DEP CON
121.3 270.35



TAKE-OFF MINIMUMS
Rwy 31L/R: Standard.
Rwy 13L/R: NA- environmental.

NOTE: 1. GPS Required.
2. RNAV 1

NOTE: Rwy 31L/R: Trees 1070 feet from departure end of runway, 500 feet right and left of centerline, 173 and 169 feet MSL.

NOTE: Rwy 31R: Light 125 feet from departure end of runway, 370 feet right of centerline, 159 MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 31L: Climb to 4000 via 307° course to CAXAB WP and 311° track to DECOT WP. Then via assigned route.

TAKE-OFF RUNWAY 31R: Climb to 4000 via 307° course to ANGIF WP and 311° track to DECOT WP. Then via assigned route.

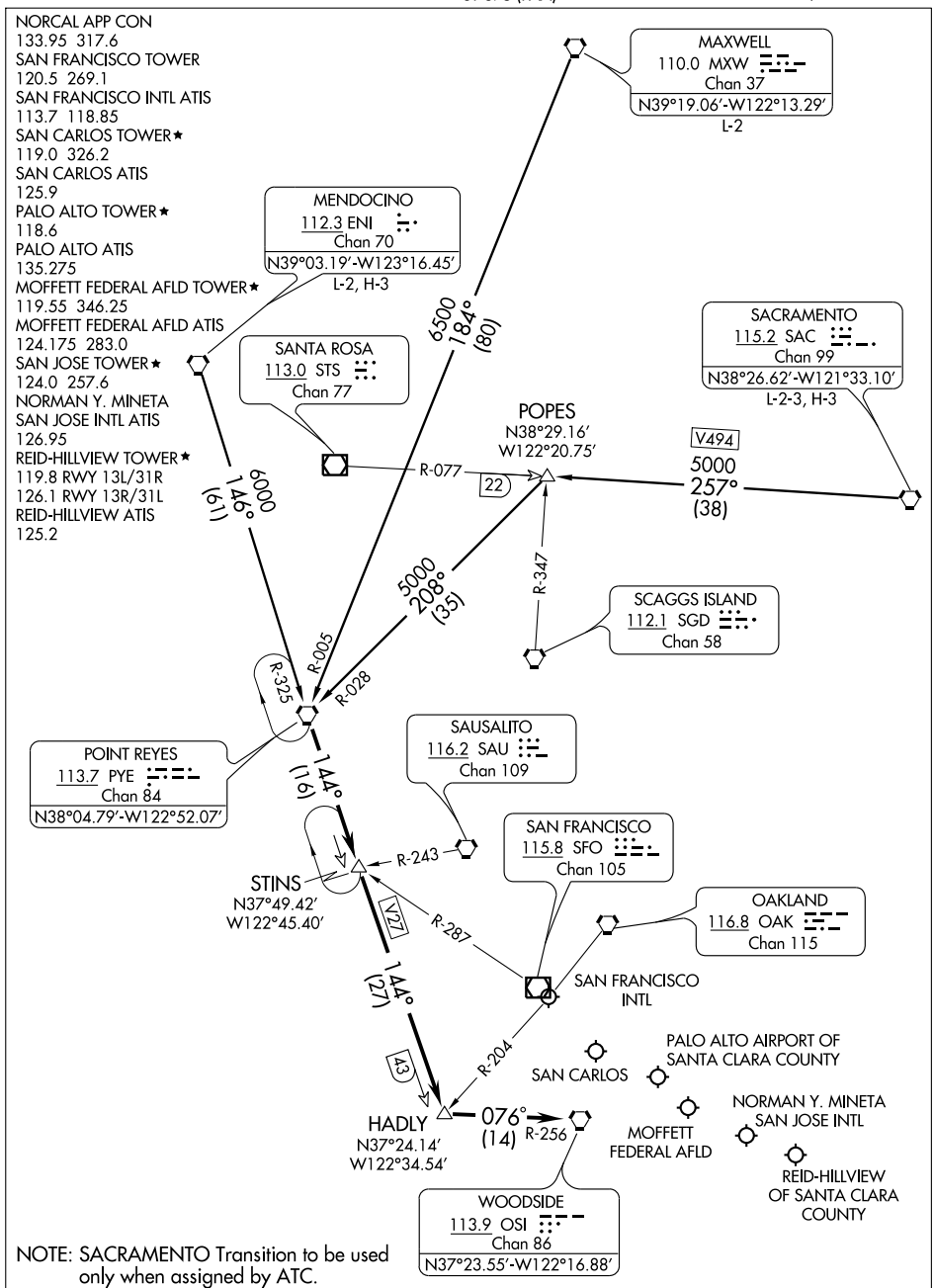
TAKE-OFF RWY 13L/13R: NA.

SW-2, 14 JAN 2010 to 11 FEB 2010

POINT REYES ONE ARRIVAL

ST-375 (FAA)

SAN FRANCISCO, CALIFORNIA



NOTE: SACRAMENTO Transition to be used only when assigned by ATC.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SW-2, 14 JAN 2010 to 11 FEB 2010

ARRIVAL DESCRIPTION

MAXWELL TRANSITION (MXW.PYE1): From over MXW VORTAC via MXW R-184 and PYE R-005 to PYE VORTAC. Thence....

MENDOCINO TRANSITION (ENI.PYE1): From over ENI VORTAC via ENI R-146 and PYE R-325 to PYE VORTAC. Thence....

SACRAMENTO TRANSITION (SAC. PYE1): From over SAC VORTAC via SAC R-257 and PYE R-028 to PYE VORTAC. Thence....

....From over PYE VORTAC via PYE R-144 to HADLY INT, then via OSI R-256 to OSI VORTAC. Expect radar vectors to final approach course.

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	2690
307°	TDZE	131
	Apt Elev	133

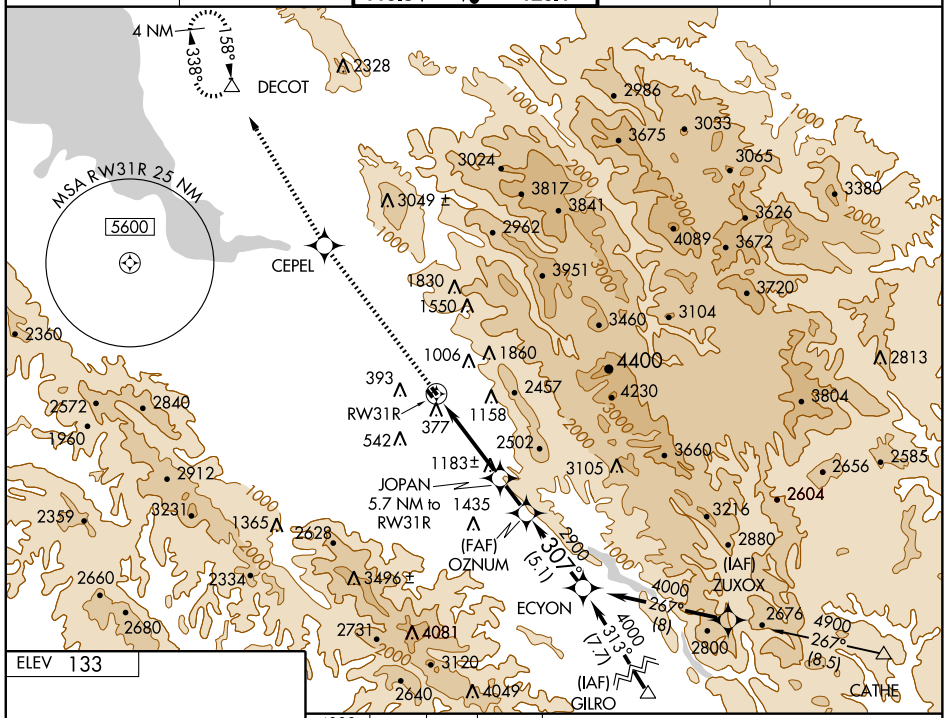
RNAV (GPS) RWY 31R

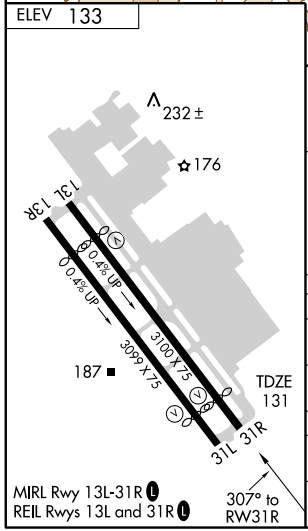
SAN JOSE/REID-HILLVIEW OF SANTA CLARA COUNTY (RHV)

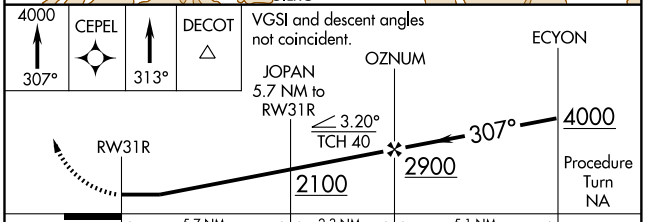
When control tower closed, use San Jose Intl altimeter setting.
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.
Circling east of Rwy 13L-31R at night not authorized.

MISSED APPROACH: Climb to 4000 via 307° course to CEPEL WP and 313° course to DECOT WP and hold.

ATIS	NORCAL APP CON	REID-HILLVIEW TOWER★		GND CON	UNICOM
		(Rwy 13L-31R)	(Rwy 13R-31L)		
125.2	120.1 290.25	119.8 (CTAF) L	126.1	121.65	122.95







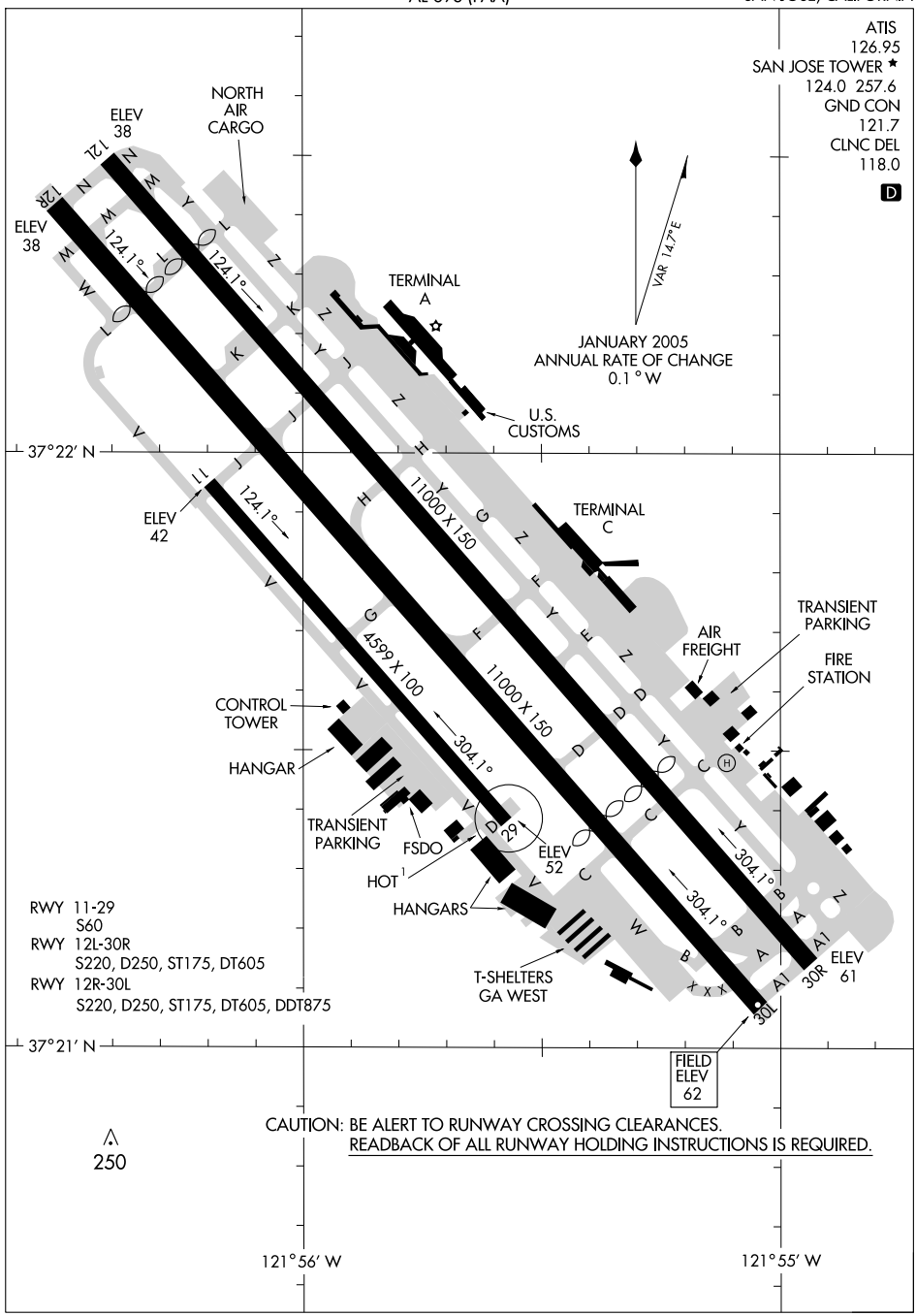
CATEGORY	A	B	C	D
LNAV MDA	1440-1¼ 1309 (1400-1¼)	1440-1½ 1309 (1400-1½)	NA	
CIRCLING	1440-1¼ 1307 (1400-1¼)	1440-1½ 1307 (1400-1½)	NA	
SAN JOSE INTL ALTIMETER SETTING MINIMUMS				
LNAV MDA	1460-1¼ 1329 (1400-1¼)	1460-1½ 1329 (1400-1½)	NA	
CIRCLING	1460-1¼ 1327 (1400-1¼)	1460-1½ 1327 (1400-1½)	NA	

SW-2, 14 JAN 2010 to 11 FEB 2010

09295

AIRPORT DIAGRAM

SAN JOSE/ NORMAN Y. MINETA SAN JOSE INTL (SJC)
AL-693 (FAA)
SAN JOSE, CALIFORNIA



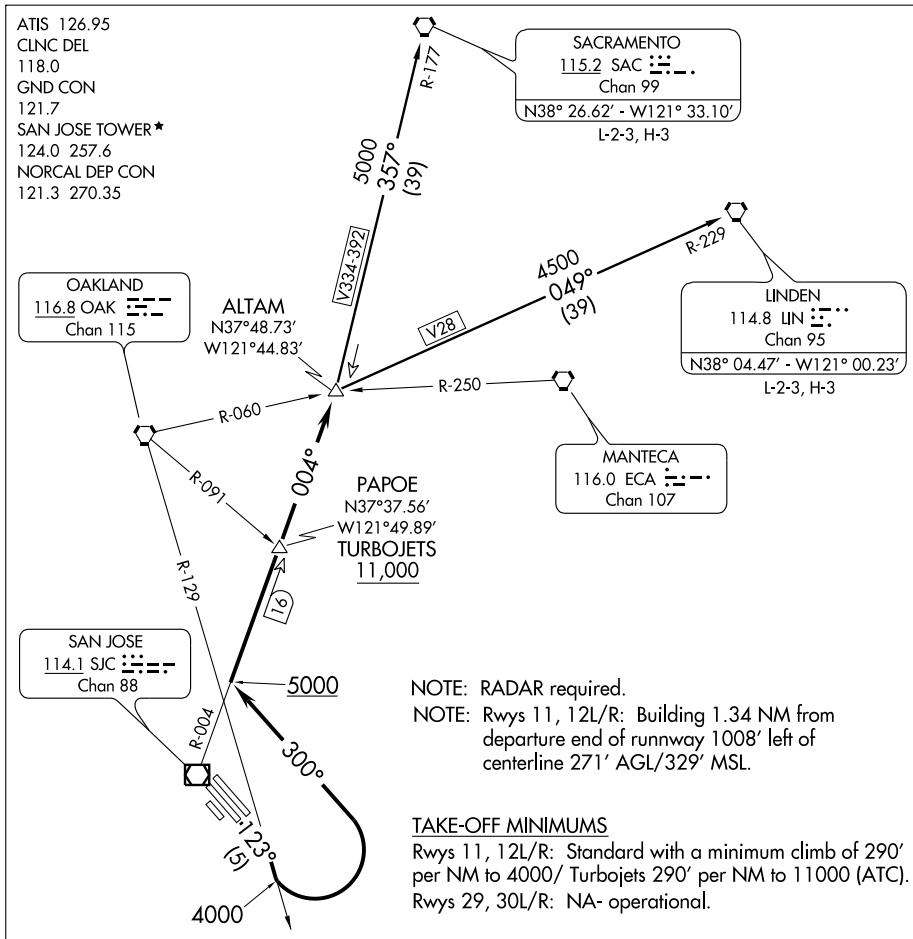
RWY 11-29
S60
RWY 12L-30R
S220, D250, ST175, DT605
RWY 12R-30L
S220, D250, ST175, DT605, DDT875

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

250

SW-2, 14 JAN 2010 to 11 FEB 2010

ALTAM SEVEN DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 11, 12L/R: Climb via heading 123° to intercept and proceed via OAK R-129 to 4000′, then turn left heading 300° to intercept SJC R-004 at or above 5000′. Proceed via SJC R-004 to ALTAM INT. Turbojets cross PAPOE INT/SJC 16 DME at or above 11,000′. Then via (transition) or (assigned route). Aircraft filing FL240 and above expect further clearance to filed altitude 10 minutes after departure.

TAKE-OFF RUNWAYS 29, 30L/R: Not Authorized.

LINDEN TRANSITION (ALTAM7.LIN) : From over ALTAM INT via LIN R-229 to LIN VORTAC.

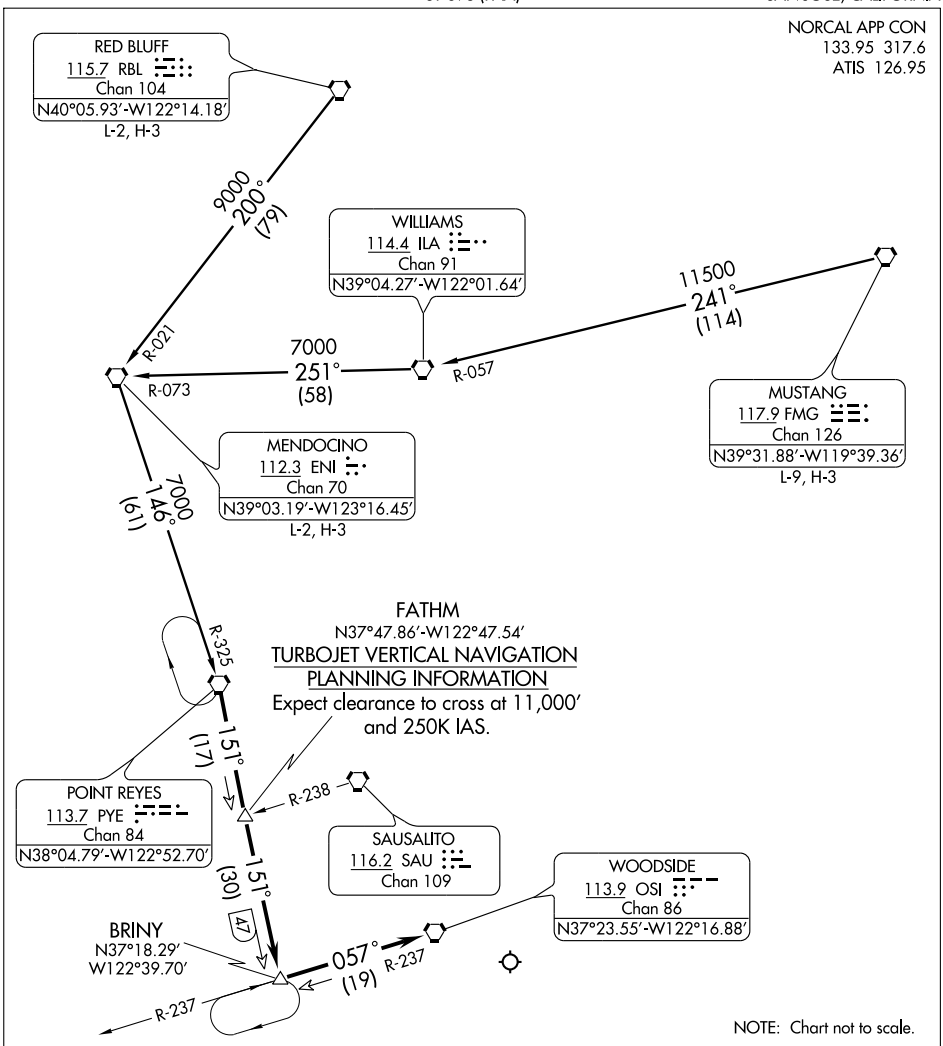
SACRAMENTO TRANSITION (ALTAM7.SAC) : From over ALTAM INT via SAC R-177 to SAC VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

BRINY ONE ARRIVAL

ST-693 (FAA)

NORMAN Y. MINETA SAN JOSE INTL
SAN JOSE, CALIFORNIA



MENDOCINO TRANSITION (ENI.BRINY1): From over ENI VORTAC via ENI R-146 and PYE R-325 to PYE VORTAC. Thence . . . .

MUSTANG TRANSITION (FMG.BRINY1): From over FMG VORTAC via FMG R-241 to ILA VORTAC then via ILA R-251 to ENI VORTAC, then via ENI R-146 to PYE VORTAC. Thence . . . .

RED BLUFF TRANSITION (RBL.BRINY1): From over RBL VORTAC via RBL R-200 and ENI R-146 to PYE VORTAC. Thence . . . .

. . . . From over PYE VORTAC via PYE R-151 to BRINY INT/DME, then via OSI R-237 to OSI VORTAC. Expect radar vectors to Rwy 12R final approach course.

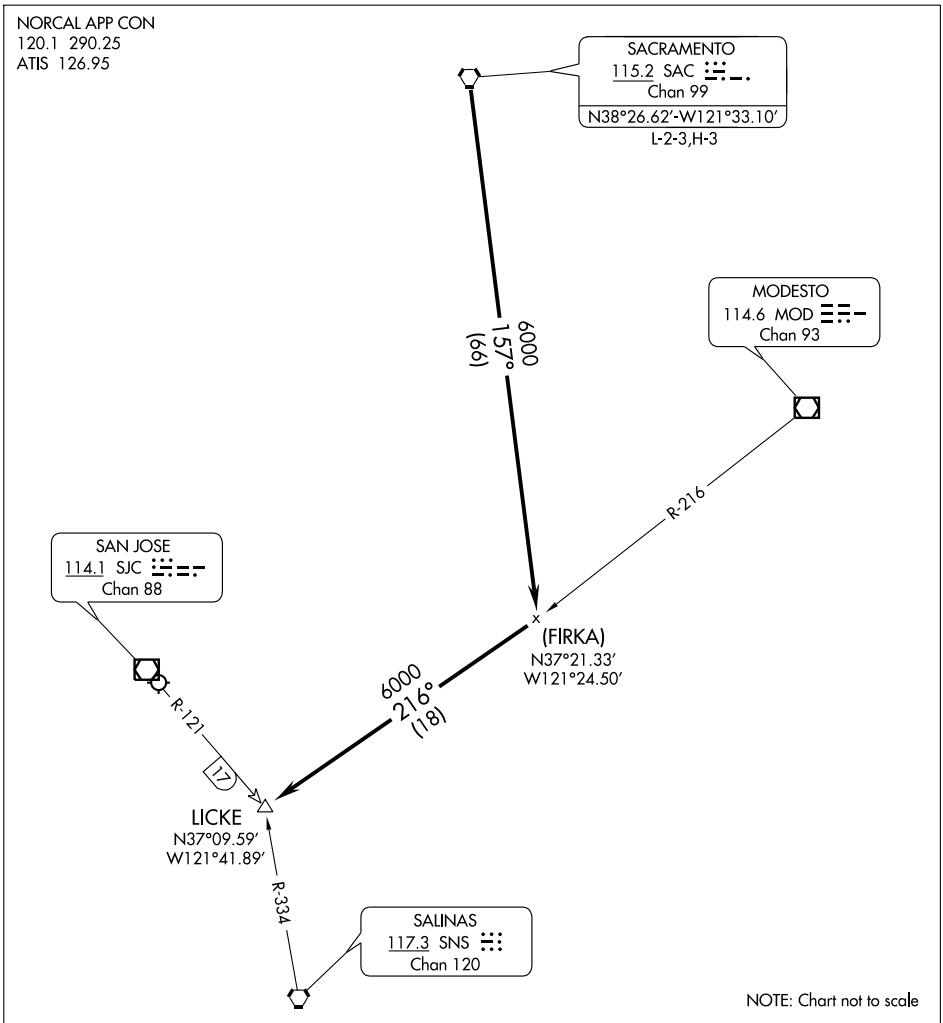
SW-2, 14 JAN 2010 to 11 FEB 2010

(SAC.CAPO3) 09351

CAPITOL THREE ARRIVAL

ST-693 (FAA)

NORMAN Y. MINETA SAN JOSE INTL
SAN JOSE, CALIFORNIA

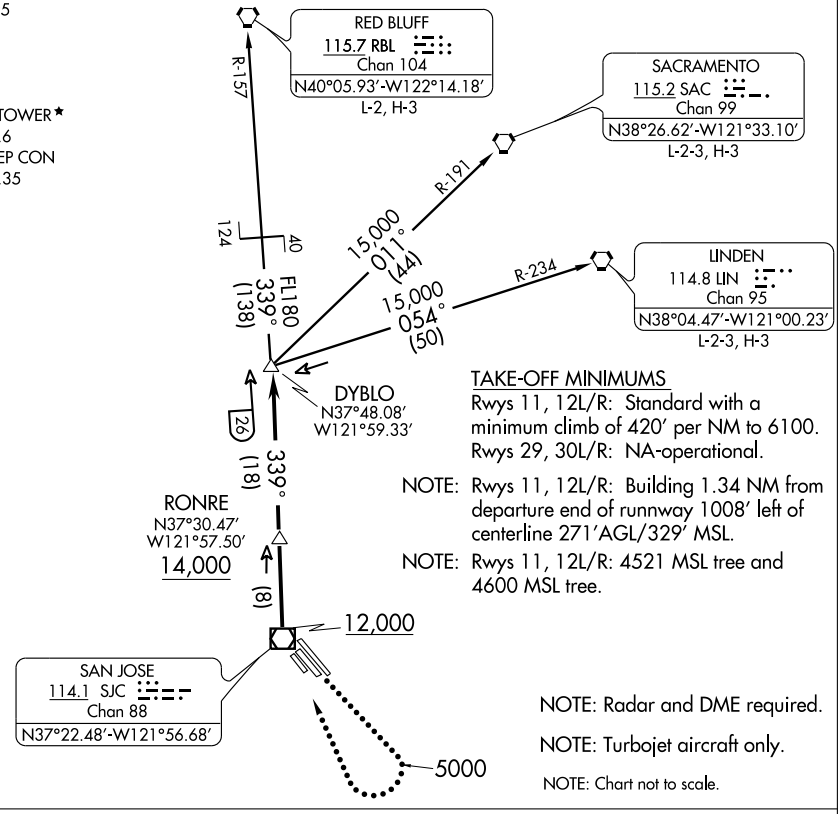


From over SAC VORTAC via SAC R-157 to intercept and proceed via MOD R-216 to LICKE INT. Then via radar vector to San Jose Intl Airport.

SW-2, 14 JAN 2010 to 11 FEB 2010

DANVILLE TWO DEPARTURE

ATIS 126.95
CLNC DEL
118.0
GND CON
121.7
SAN JOSE TOWER ★
124.0 257.6
NORCAL DEP CON
121.3 270.35



TAKE-OFF MINIMUMS
Rwys 11, 12L/R: Standard with a minimum climb of 420' per NM to 6100.
Rwys 29, 30L/R: NA-operational.

NOTE: Rwys 11, 12L/R: Building 1.34 NM from departure end of runnway 1008' left of centerline 271'AGL/329' MSL.

NOTE: Rwys 11, 12L/R: 4521 MSL tree and 4600 MSL tree.

NOTE: Radar and DME required.

NOTE: Turbojet aircraft only.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 29, 30L/R: NA.

TAKE-OFF RUNWAYS 11, 12L/R: Climb via runway heading for vector to SJC VOR/DME, then via SJC R-339 to DYBLO INT, thence via (transition) or (assigned route). Cross SJC VOR/DME at or above 12,000'. Cross RONRE/8 DME at or above14,000', maintain assigned altitude. Aircraft filing FL240 and above expect further clearance to filed altitude after passing SJC VOR/DME.

LOST COMMUNICATIONS:
Runways 11, 12L/R: If not in contact with departure control after reaching 5000', turn right direct SJC VOR/DME thence via SJC VOR/DME R-339 to DYBLO INT, thence via (transition) or (assigned route). Cross SJC VOR/DME at or above 12,000', cross RONRE/8 DME at or above 14,000', then climb to filed altitude.

LINDEN TRANSITION (DANV2.LIN): From over DYBLO INT via LIN R-234 to LIN VORTAC.
RED BLUFF TRANSITION (DANV2.RBL): From over DYBLO INT via SJC R-339 and RBL R-157 to RBL VORTAC.
SACRAMENTO TRANSITION (DANV2.SAC): From over DYBLO INT via SAC R-191 to SAC VORTAC.

EL NIDO FIVE ARRIVAL (HYP.HYP5) 09351

NORMAN Y. MINETA SAN JOSE INTL
SAN JOSE, CALIFORNIA

NORCAL APP CON
126.475 317.775
ATIS 126.95

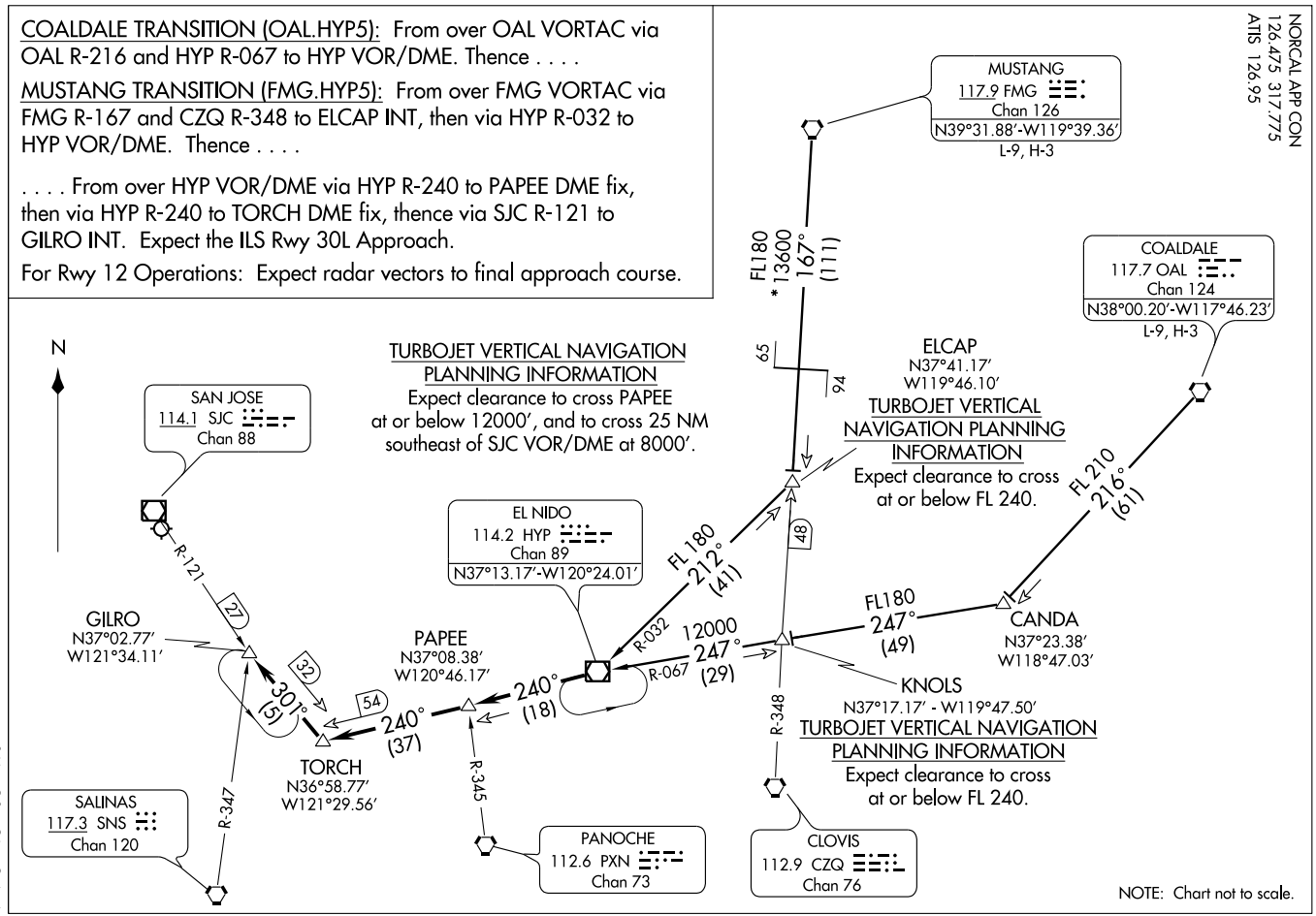
ST-693 (FAA)

COALDALE TRANSITION (OAL.HYP5): From over OAL VORTAC via OAL R-216 and HYP R-067 to HYP VOR/DME. Thence . . . .

MUSTANG TRANSITION (FMG.HYP5): From over FMG VORTAC via FMG R-167 and CZQ R-348 to ELCAP INT, then via HYP R-032 to HYP VOR/DME. Thence . . . .

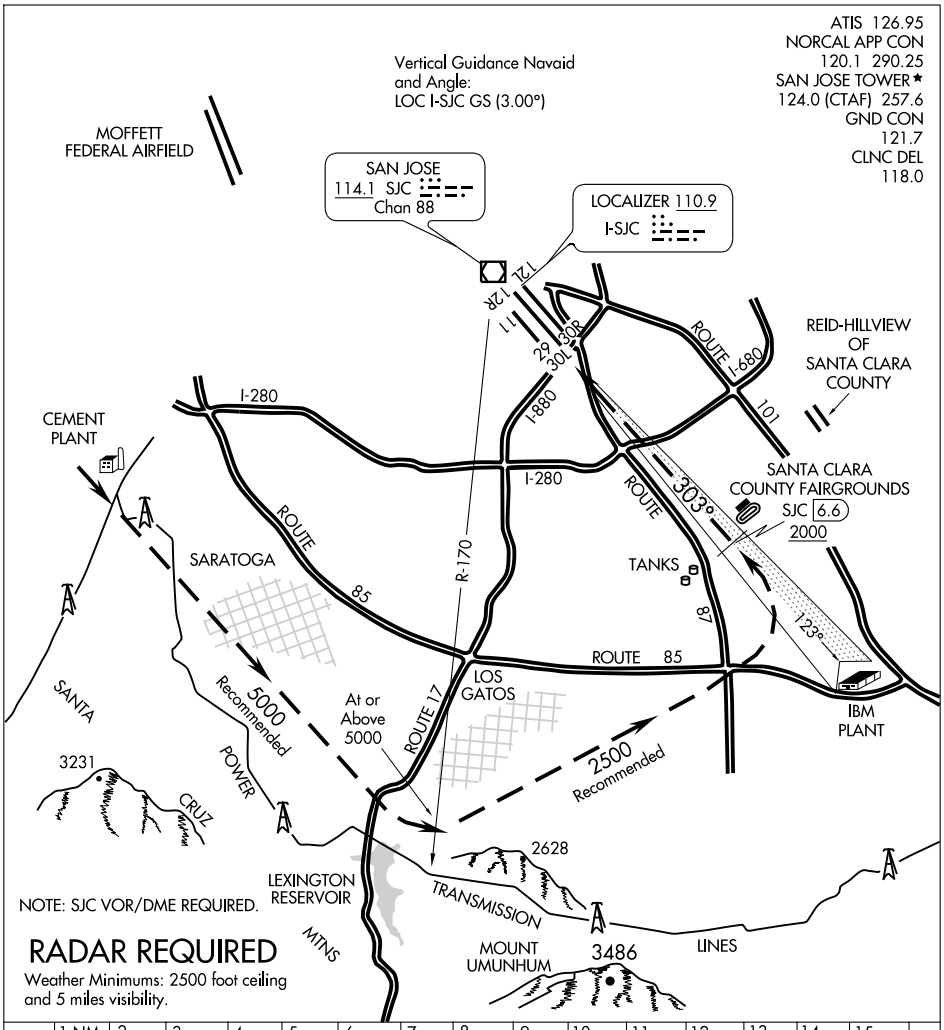
. . . . From over HYP VOR/DME via HYP R-240 to PAPEE DME fix, then via HYP R-240 to TORCH DME fix, thence via SJC R-121 to GILRO INT. Expect the ILS Rwy 30L Approach.

For Rwy 12 Operations: Expect radar vectors to final approach course.



FAIRGROUNDS VISUAL RWYS 30L/R

SAN JOSE, CALIFORNIA



FAIRGROUNDS VISUAL APPROACH RUNWAYS 30L/R

Turbo-jet aircraft from the west-northwest may be vectored in the vicinity of the Cement Plant for a Fairgrounds Visual Approach.
Aircraft should turn base no closer than SJC R-170. Aircraft should turn final no closer than 6.6 DME at or above 2,000′ for noise abatement.

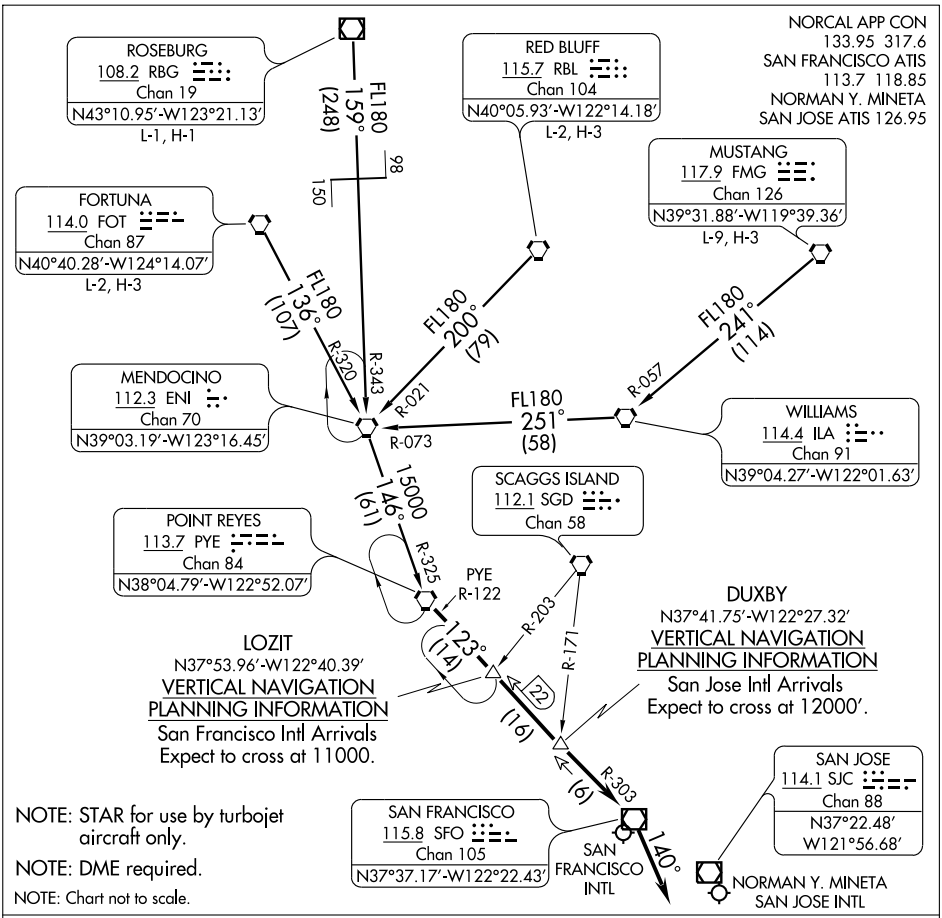
NOTE: Closely spaced parallel visual approaches may be in progress to Runways 30L/R. In the event of a go-around on Runway 30L, proceed straight-ahead heading 300°, or on Runway 30R, turn right heading 120°, climb and maintain 4,000, or as directed by ATC.

(PYE.GOLDN5) 09351

GOLDEN GATE FIVE ARRIVAL

ST-375 (FAA)

SAN FRANCISCO, CALIFORNIA



FORTUNA TRANSITION (FOT.GOLDN5): From over FOT VORTAC via FOT R-136 and ENI R-320 to ENI VORTAC, then via ENI R-146 and PYE R-325 to PYE VORTAC. Thence....

MUSTANG TRANSITION (FMG.GOLDN5): From over FMG VORTAC via FMG R-241 and ILA R-057 to ILA VORTAC, then via ILA R-251 and ENI R-073 to ENI VORTAC, then via ENI R-146 and PYE R-325 to PYE VORTAC. Thence....

RED BLUFF TRANSITION (RBL.GOLDN5): From over RBL VORTAC via RBL R-200 and ENI R-021 to ENI VORTAC, then via ENI R-146 and PYE R-325 to PYE VORTAC. Thence....

ROSEBURG TRANSITION (RBG.GOLDN5): From over RBG VOR/DME via RBG R-159 and ENI R-343 to ENI VORTAC, then via ENI R-146 and PYE R-325 to PYE VORTAC. Thence....

....From over PYE VORTAC via SFO R-303 to SFO VOR/DME, then via heading 140° (MEA 6000). Expect vectors to final approach course.

LOST COMMUNICATIONS: San Jose Intl: After SFO VOR/DME proceed direct SJC VOR/DME. (MEA 6000).

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN JOSE, CALIFORNIA AL-693 (FAA)

ILS or LOC/DME RWY 30L

LOC I-SJC	APP CRS	Rwy Idg 30L	Rwy Idg 30R	Rwy Idg 29
110.9	303°	7605	7479	4599
Chan 46		TDZE 57	TDZE 55	TDZE 52
		Apt Elev 62	Apt Elev 62	Apt Elev 62

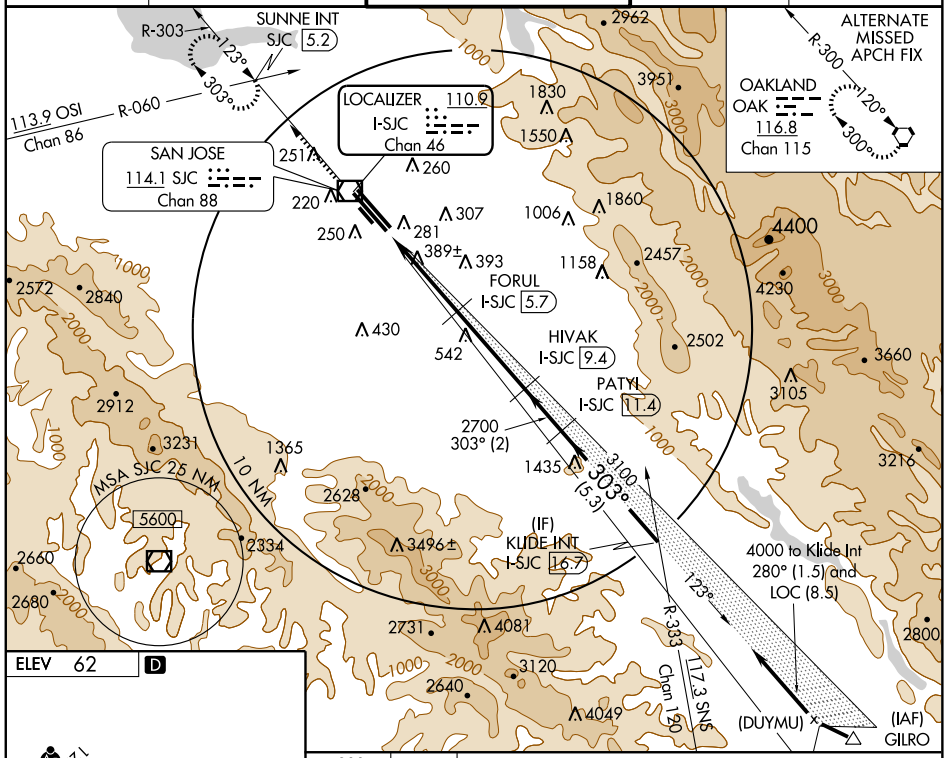
SAN JOSE / NORMAN Y. MINETA SAN JOSE INTL (SJC)

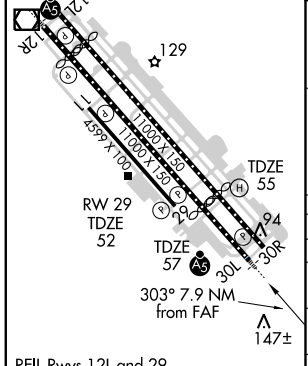
T A DME required.
* RVR 1800 authorized with the use of FD or AP or HUD to DA.

MALSR Rwy 30L

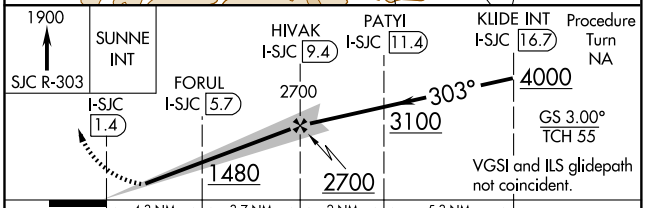
MISSED APPROACH: Climb to 1900 via the SJC R-303 to SUNNE Int and hold.

ATIS	NORCAL APP CON	SAN JOSE TOWER *	GND CON	CLNC DEL
126.95	120.1 290.25	124.0 (CTAF) L 257.6	121.7	118.0





REIL Rwys 12L and 29
MIRL Rwy 11-29 L
HIRL Rwys 12L-30R and 12R-30L L



CATEGORY	A	B	C	D
S-ILS 30L	*257/24 200 (200-½)			
S-LOC 30L	640/24 583 (600-½)		640/50 583 (600-1)	640/60 583 (600-1¼)
SIDESTEP RWY 29	640-1 588 (600-1)		640-1½ 588 (600-1½)	640-2 588 (600-2)
SIDESTEP RWY 30R	640-1 585 (600-1)		640-1½ 585 (600-1½)	640-2 585 (600-2)
CIRCLING	NA			

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN JOSE, CALIFORNIA AL-693 (FAA)

ILS or LOC RWY 12R

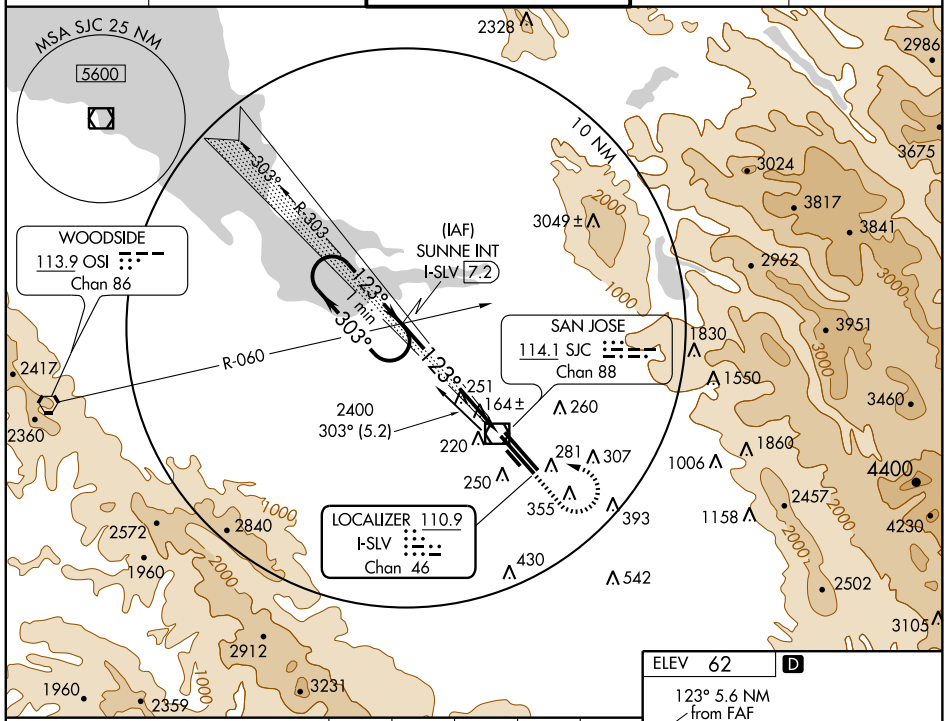
SAN JOSE / NORMAN Y. MINETA SAN JOSE INTL (SJC)

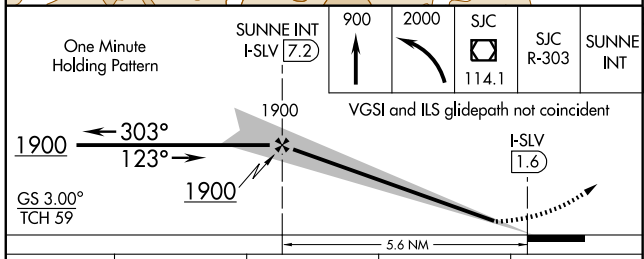
LOC I-SLV 110.9 Chan 46	APP CRS 123°	Rwy Idg 12R 8584 TDZE 46 Apt Elev 62	Rwy Idg 12L 8810 TDZE 44 Apt Elev 62	Rwy Idg 11 4599 TDZE 49 Apt Elev 62

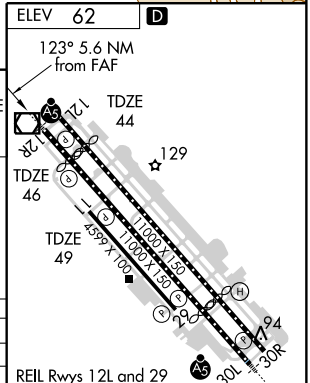
MALSR Rwy 12R

MISSED APPROACH: Climb to 900 then climbing left turn to 2000 direct SJC VOR/DME and R-303 to SUNNE Int and hold.

ATIS	NORCAL APP CON	SAN JOSE TOWER ★	GND CON	CLNC DEL
126.95	120.1 290.25	124.0 (CTAF) L 257.6	121.7	118.0







CATEGORY	A	B	C	D
S-ILS 12R	258-½ 212 (200-½)			
S-LOC 12R	420-½ 374 (400-½)			420-¾ 374 (400-¾)
SIDESTEP RWY 12L	420-1 376 (400-1)		420-1½ 376 (400-1½)	420-2 376 (400-2)
SIDESTEP RWY 11	480-1 431 (500-1)		480-1½ 431 (500-1½)	480-2 431 (500-2)
CIRCLING	NA			

FAF to MAP 5.6 NM

Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52

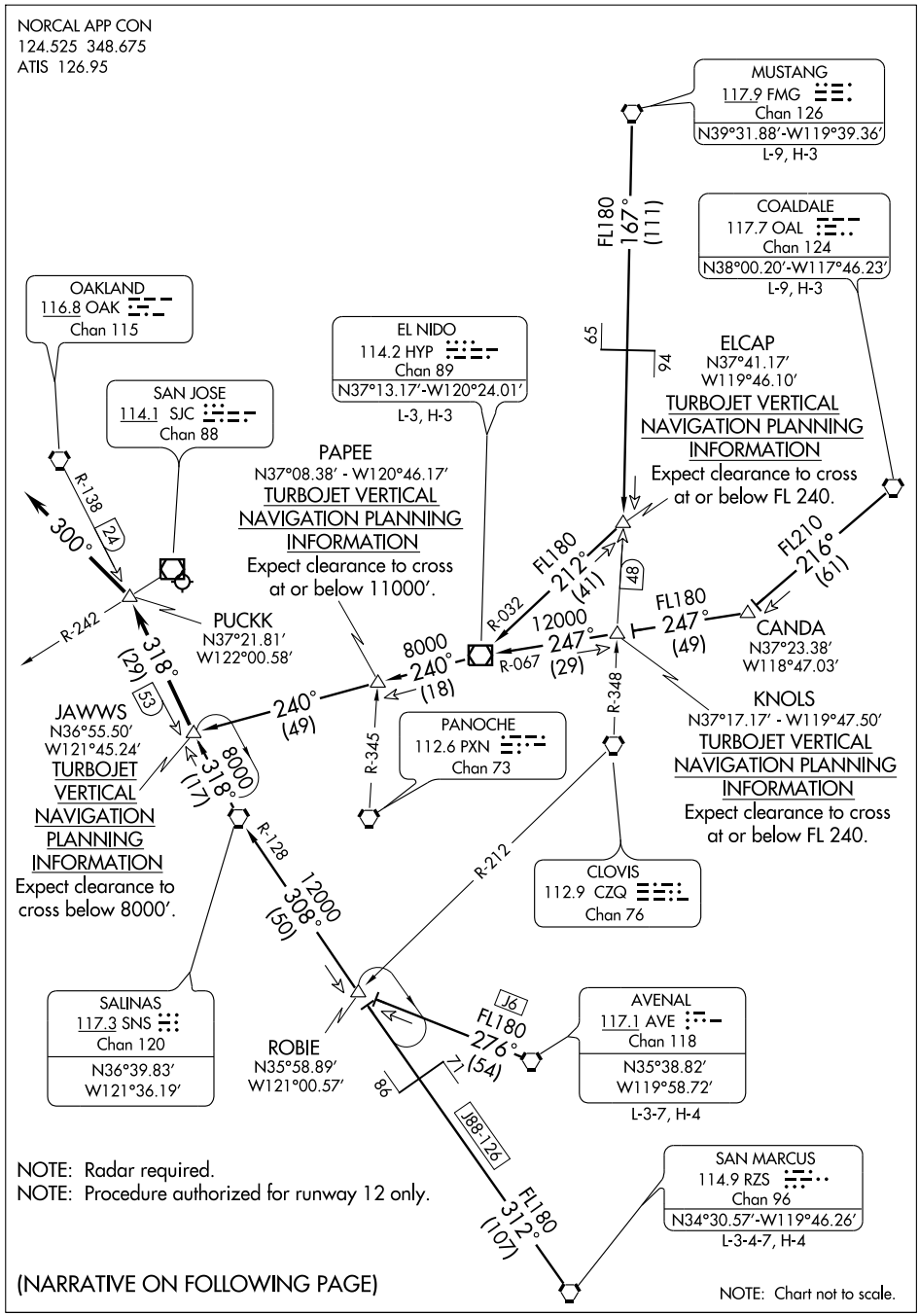
SW-2, 14 JAN 2010 to 11 FEB 2010

(JAWWS.JAWWS2) 09351

JAWWS TWO ARRIVAL

ST-693 (FAA)

NORMAN Y. MINETA SAN JOSE INTL
SAN JOSE, CALIFORNIA



SW-2, 14 JAN 2010 to 11 FEB 2010

JAWWS TWO ARRIVAL

ARRIVAL DESCRIPTION

AVENAL TRANSTION (AVE.JAWWS2): From over AVE VORTAC via AVE R-276 to ROBIE INT, then via SNS R-128 to SNS VORTAC, then via SNS R-318 to JAWWS INT. Thence . . . .

COALDALE TRANSITION (OAL.JAWWS2): From over OAL VORTAC via OAL R-216 and HYP R-067 to HYP VOR/DME, then via HYP R-240 to JAWWS INT. Thence . . . .

EL NIDO TRANSITION (HYP.JAWWS2): From over HYP VOR/DME via HYP R-240 to PAPEE INT then via HYP R-240 to JAWWS INT. Thence . . . .

MUSTANG TRANSITION (FMG.JAWWS2): From over FMG VORTAC via FMG R-167 to ELCAP INT, then via HYP R-032 to HYP VOR/DME, then via HYP R-240 to JAWWS INT. Thence . . . .

SAN MARCUS TRANSITION (RZS.JAWWS2): From over RZS VORTAC via RZS R-312 and SNS R-128 to SNS VORTAC, then via SNS R-318 to JAWWS INT. Thence . . . .

. . . . From over JAWWS INT via OAK R-138 to PUCKK INT, thence via heading 300°, expect radar vectors to final approach course.

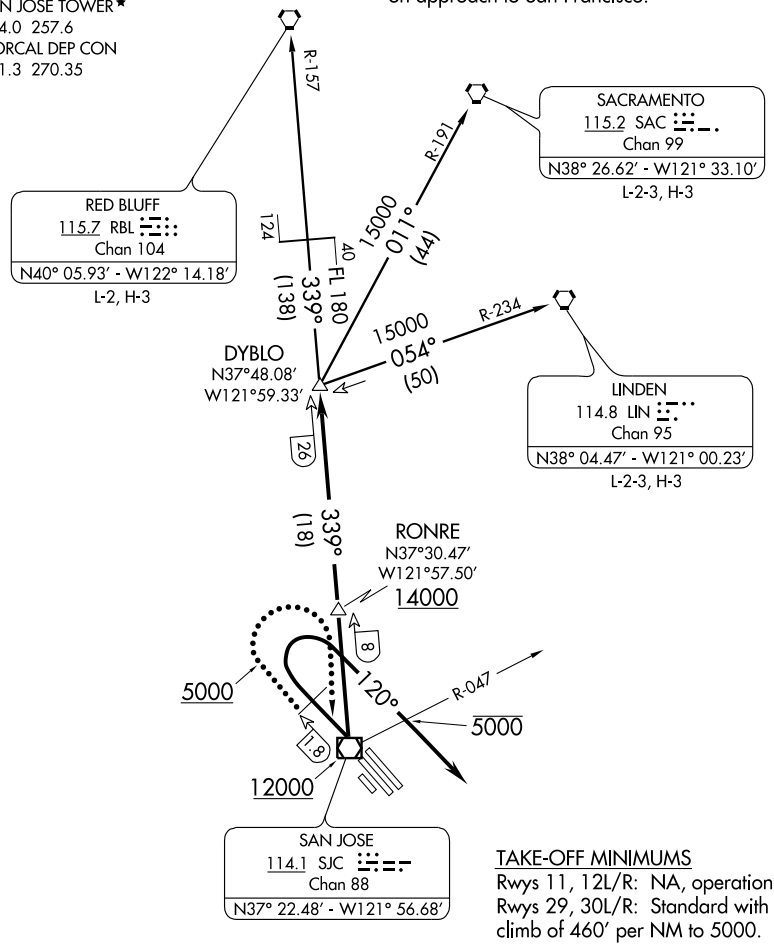
LOST COMMUNICATIONS: In the event of lost communications proceed direct to SJC VOR/DME and execute runway 12R ILS approach.

SW-2, 14 JAN 2010 to 11 FEB 2010

LOUPE ONE DEPARTURE

ATIS 126.95
CLNC DEL
118.0
GND CON
121.7
SAN JOSE TOWER ★
124.0 257.6
NORCAL DEP CON
121.3 270.35

ALERT: SJC R-047 5000′ crossing restriction protects aircraft descending on approach to San Francisco.



TAKE-OFF MINIMUMS
Rwys 11, 12L/R: NA, operational.
Rwys 29, 30L/R: Standard with a minimum climb of 460′ per NM to 5000.

NOTE: Rwy 29, tree 2254′ from departure end of runway 113′ left of centerline 63′ AGL 102′ MSL.
NOTE: Rwy 30L, pole 1739′ from departure end of runway 743′ left of centerline 55′ AGL/91′ MSL.
NOTE: Rwy 30R, pole 963′ from departure end of runway 133′ right of centerline 49′ AGL/85′ MSL.
NOTE: Rwys 29, 30L/R, 3043 MSL tower.

NOTE: Radar and DME Required.
NOTE: Turbojet aircraft only.
NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SW-2, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS11, 12L: NA.

TAKE-OFF RUNWAYS 29, 30L/R: Climb runway heading at SJC 1.8 DME northwest of SJC VOR/DME turn right heading 120°, maintain 5000, for radar vectors to SJC VOR/DME, then via SJC R-339 to DYBLO INT, Thence....

....via (transition) or (assigned route). Cross SJC R-047 at or below 5000, cross SJC VOR/DME at or above 12000, cross RONRE/8 DME at or above 14000, maintain assigned altitude. Aircraft filing FL240 and above expect further clearance to filed altitude 10 minutes after departure.

LOST COMMUNICATIONS:
Runways 29, 30L/R: If not in contact with departure control after reaching 5000' turn right direct SJC VOR/DME thence via SJC VOR/DME R-339 to DYBLO INT, thence via (transition) or (assigned route). Cross SJC VOR/DME at or above 12000, cross RONRE/8 DME at or above 14000, then climb to filed altitude.

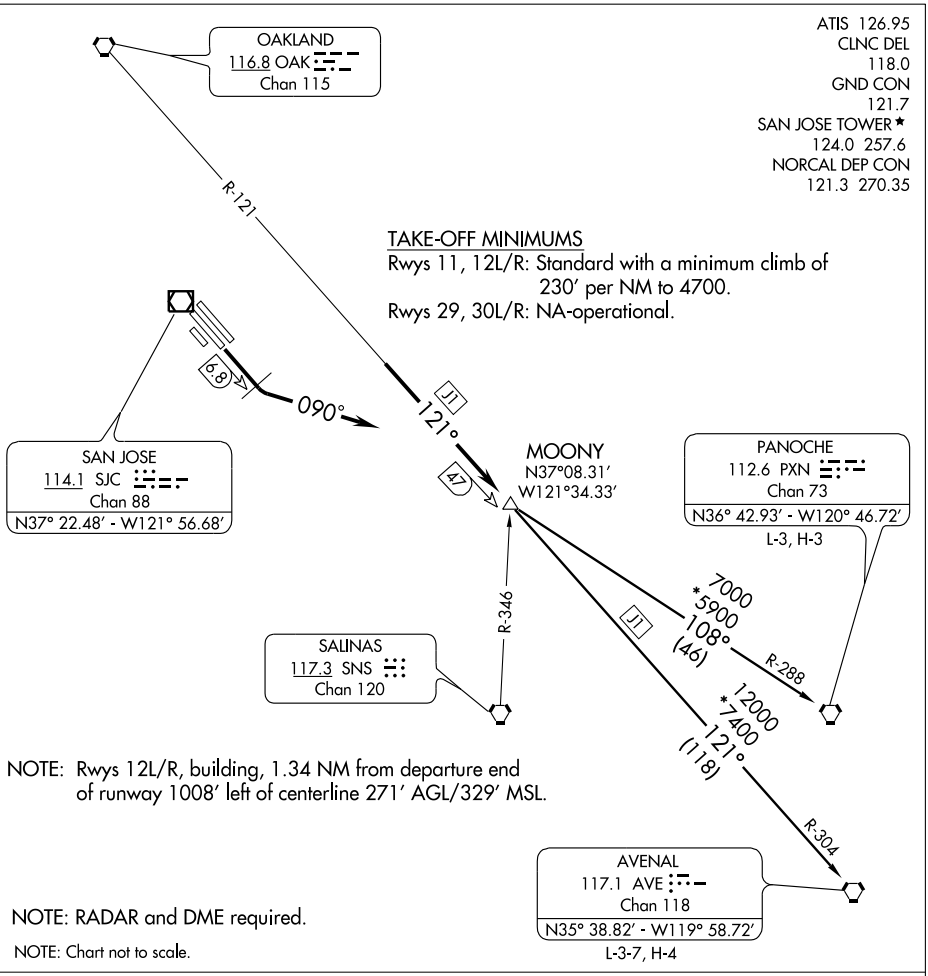
LINDEN TRANSITION (LOUPE1.LIN): From over DYBLO INT via LIN R-234 to LIN VORTAC.

RED BLUFF TRANSITION (LOUPE1.RBL): From over DYBLO INT via SJC R-339 and RBL R-157 to RBL VORTAC.

SACRAMENTO TRANSITION (LOUPE1.SAC): From over DYBLO INT via SAC R-191 to SAC VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

MOONY TWO DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 29, 30L/R: NA.

TAKE-OFF RUNWAYS 11, 12L/R: Climb runway heading upon leaving 3000 and not prior to SJC 6.8 DME southeast of SJC VOR/DME, turn left heading 090° to intercept and proceed via OAK R-121 to MOONY INT/OAK 47 DME. Thence....

....via (transition) or (assigned route). Aircraft filing FL240 or above expect further clearance to filed altitude ten minutes after departure.

AVENAL TRANSITION (MOONY2.AVE) : From over MOONY INT via OAK R-121 and AVE R-304 to AVE VORTAC.

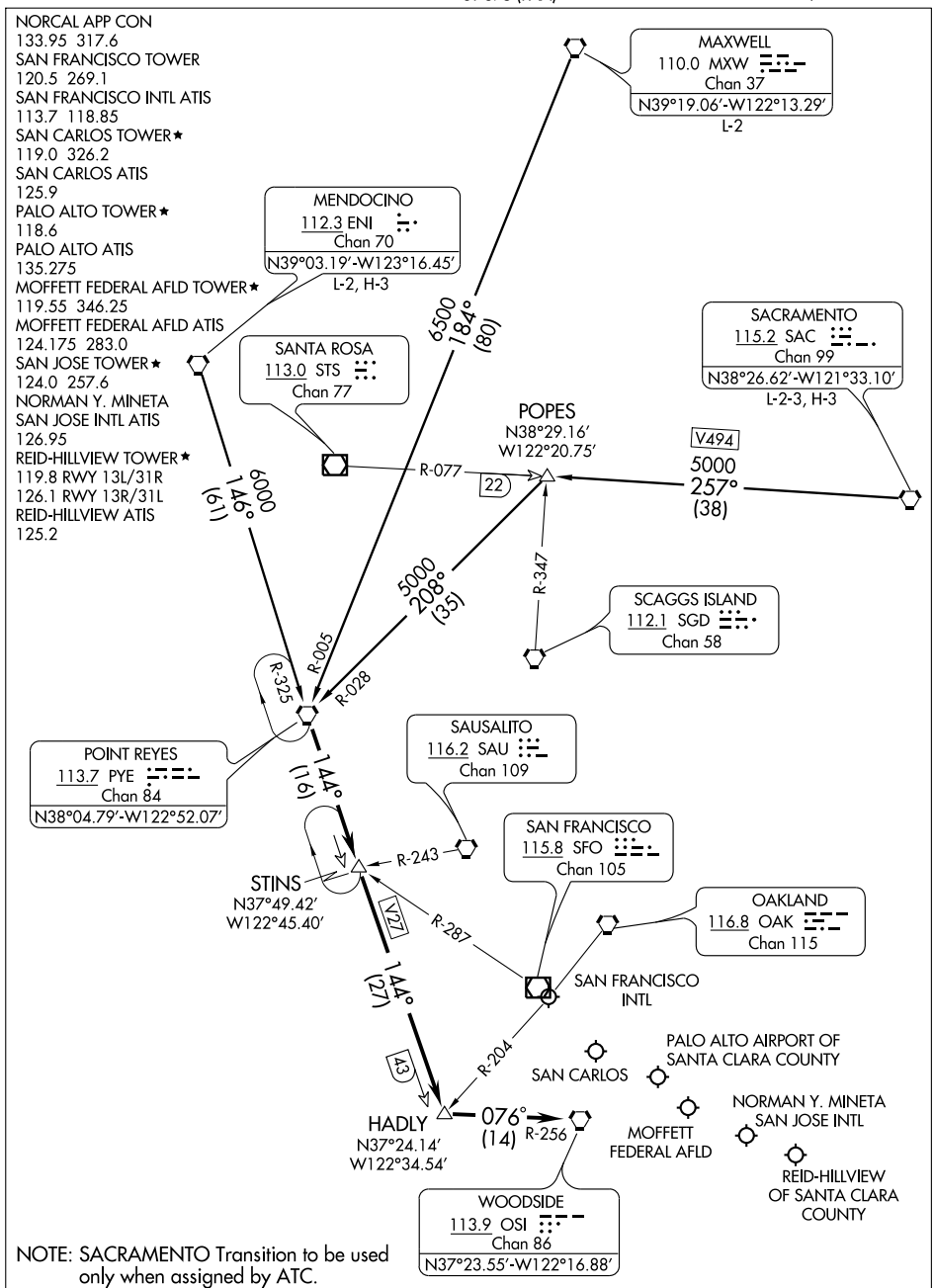
PANOCHE TRANSITION (MOONY2.PXN) : From over MOONY INT via PXN R-288 to PXN VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

POINT REYES ONE ARRIVAL

ST-375 (FAA)

SAN FRANCISCO, CALIFORNIA



NOTE: SACRAMENTO Transition to be used only when assigned by ATC.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SW-2, 14 JAN 2010 to 11 FEB 2010

ARRIVAL DESCRIPTION

MAXWELL TRANSITION (MXW.PYE1): From over MXW VORTAC via MXW R-184 and PYE R-005 to PYE VORTAC. Thence....

MENDOCINO TRANSITION (ENI.PYE1): From over ENI VORTAC via ENI R-146 and PYE R-325 to PYE VORTAC. Thence....

SACRAMENTO TRANSITION (SAC. PYE1): From over SAC VORTAC via SAC R-257 and PYE R-028 to PYE VORTAC. Thence....

....From over PYE VORTAC via PYE R-144 to HADLY INT, then via OSI R-256 to OSI VORTAC. Expect radar vectors to final approach course.

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	4599
123°	TDZE	49
	Apt Elev	62

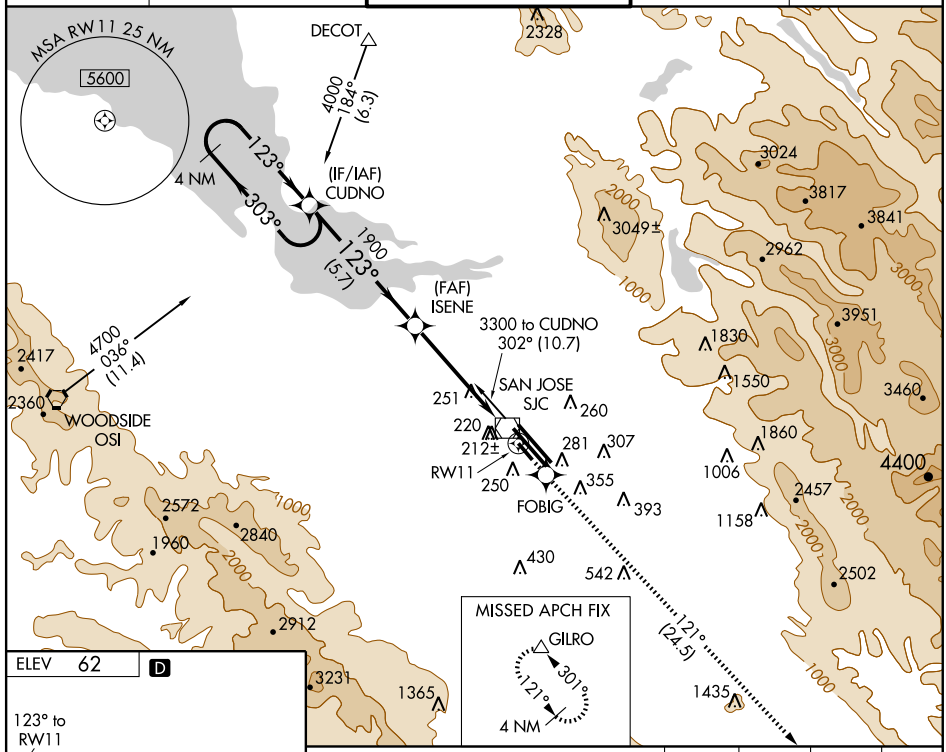
RNAV (GPS) RWY 11

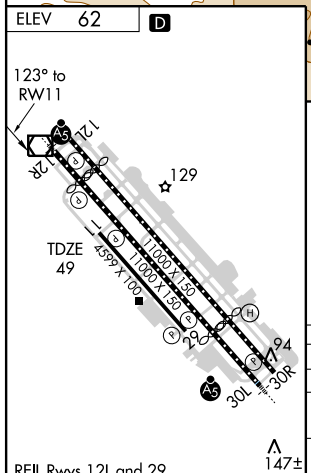
SAN JOSE / NORMAN Y. MINETA SAN JOSE INTL (SJC)

DME/DME RNP- 0.3 NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F).

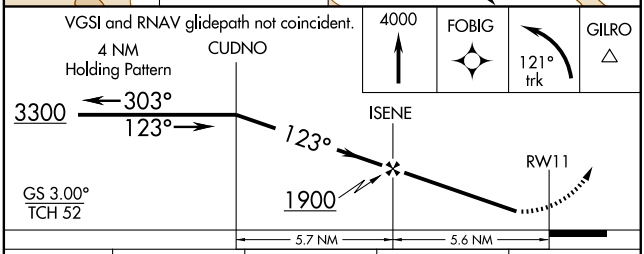
MISSED APPROACH: Climb to 4000 direct FOBIG WP and left turn via 121° track to GILRO WP and hold.

ATIS	NORCAL APP CON	SAN JOSE TOWER ★	GND CON	CLNC DEL
126.95	120.1 290.25	124.0 (CTAF) L 257.6	121.7	118.0





REIL Rwys 12L and 29
MIRL Rwy 11-29 L
HIRL Rwys 12L-30R and 12R-30L L



CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	516-1¾ 467 (500-1¾)			
LNAV MDA	520-1 471 (500-1)		520-1¼ 471 (500-1¼)	520-1½ 471 (500-1½)
CIRCLING	640-1 578 (600-1)	680-1 618 (700-1)	720-1¾ 658 (700-1¾)	720-2 658 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN JOSE, CALIFORNIA

AL-693 (FAA)

WAAS	APP CRS	Rwy Idg	8810
CH 69501	123°	TDZE	44
W12B		Apt Elev	62

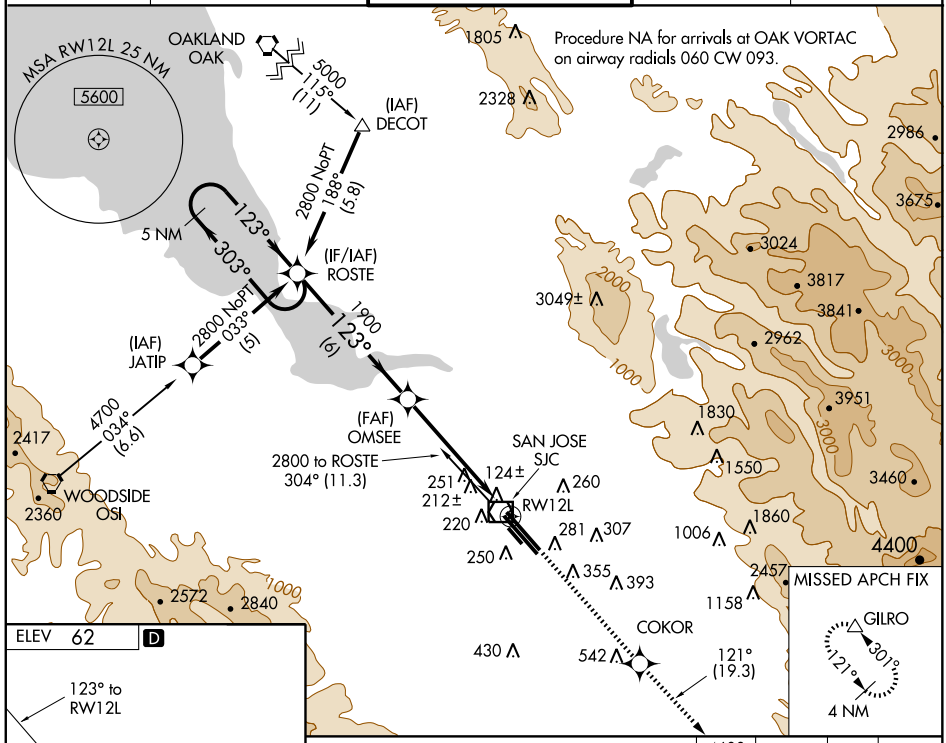
RNAV (GPS) RWY 12L

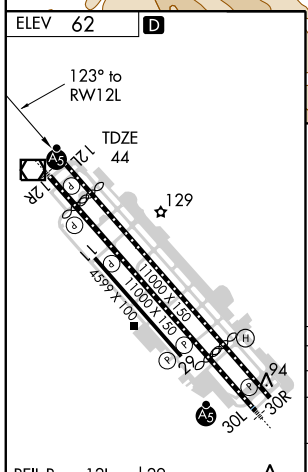
SAN JOSE / NORMAN Y. MINETA SAN JOSE INTL (SJC)

Visibility reduction by helicopters NA.
DME/DME RNP- 0.3 NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F).

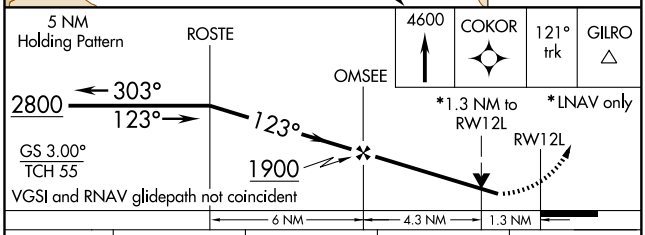
MISSED APPROACH: Climb to 4600 direct COKOR and via 121° track to GILRO and hold.

ATIS	NORCAL APP CON	SAN JOSE TOWER ★	GND CON	CLNC DEL
126.95	120.1 290.25	124.0 (CTAF) L 257.6	121.7	118.0





REIL Rwys 12L and 29
MIRL Rwy 11-29 L
HIRL Rwys 12L-30R and 12R-30L L



CATEGORY	A	B	C	D
LPV DA	351-1 307 (300-1)			
LNAV/VNAV DA	508-1¾ 464 (500-1¾)			
LNAV MDA	520-1 476 (500-1)		520-1¼ 476 (500-1¼)	520-1½ 476 (500-1½)
CIRCLING	640-1 578 (600-1)	680-1 618 (700-1)	720-1¾ 658 (700-1¾)	720-2 658 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	4599
303°	TDZE	52
	Apt Elev	62

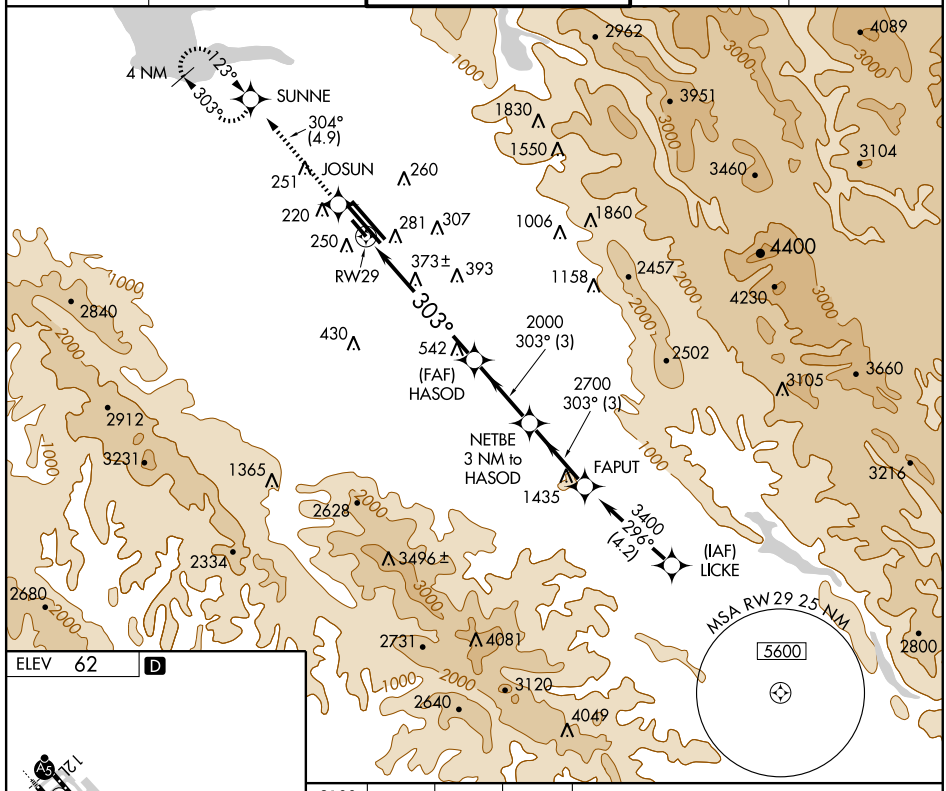
RNAV (GPS) RWY 29

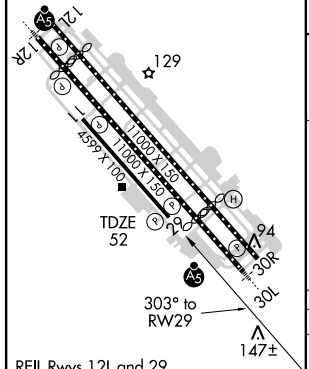
SAN JOSE / NORMAN Y. MINETA SAN JOSE INTL (SJC)

DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 2100 direct JOSUN WP and right turn via 304° track to SUNNE WP and hold.

ATIS	NORCAL APP CON	SAN JOSE TOWER ★	GND CON	CLNC DEL
126.95	120.1 290.25	124.0 (CTAF) L 257.6	121.7	118.0





REIL Rwys 12L and 29
MIRL Rwy 11-29 L
HIRL Rwys 12L-30R and 12R-30L L

CATEGORY	A	B	C	D
LNAV MDA	640-1 588 (600-1)		640-1½ 588 (600-1½)	640-1¾ 588 (600-1¾)
CIRCLING	640-1 578 (600-1)	680-1 618 (700-1)	720-1½ 658 (700-1½)	720-2 658 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 72901 W30B	APP CRS 303°	Rwy Idg 7479 TDZE 55 Apt Elev 62

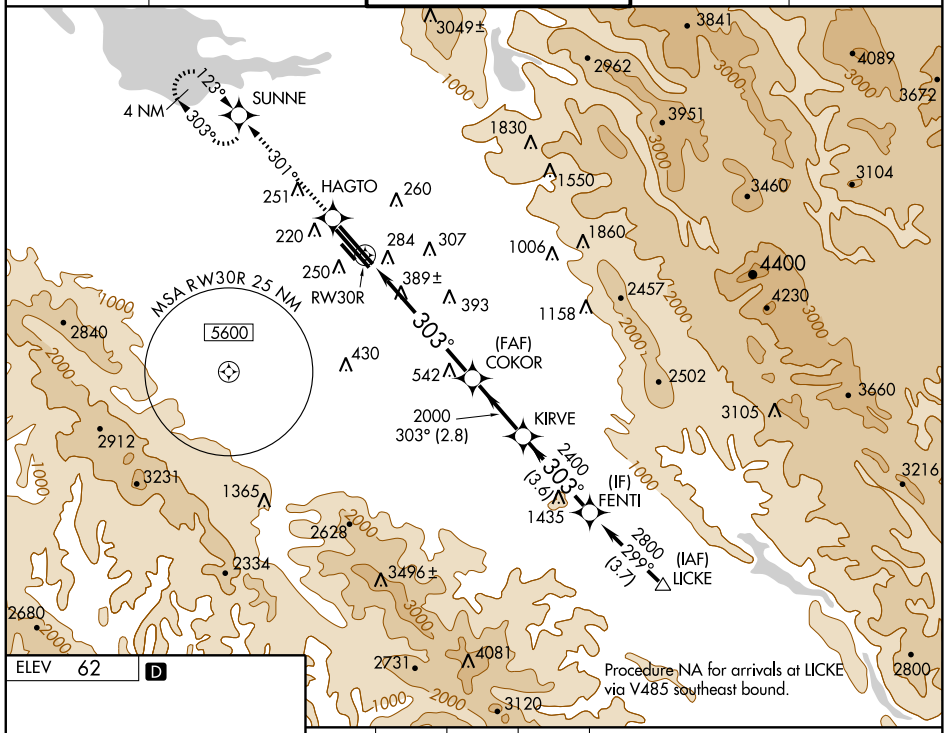
RNAV (GPS) RWY 30R

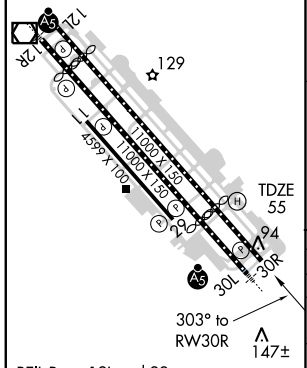
SAN JOSE / NORMAN Y. MINETA SAN JOSE INTL (SJC)

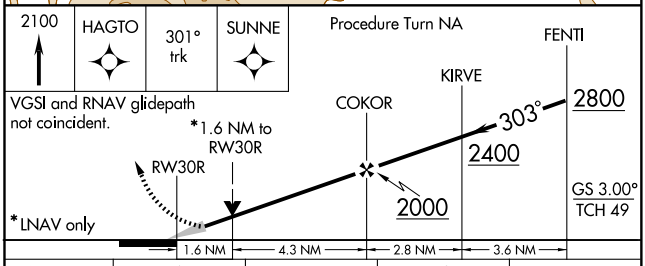
Visibility reduction by helicopters NA. DME/DME RNP -0.3 NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F).

MISSED APPROACH: Climb to 2100 direct HAGTO and via 301° track to SUNNE and hold.

ATIS	NORCAL APP CON	SAN JOSE TOWER ★	GND CON	CLNC DEL
126.95	120.1 290.25	124.0 (CTAF) L 257.6	121.7	118.0







CATEGORY	A	B	C	D
LPV DA	367-1 312 (400-1)			
LNAV/VNAV DA	654-2 599 (600-2)			
LNAV MDA	640-1 585 (600-1)		640-1½ 585 (600-1½)	640-1¾ 585 (600-1¾)
CIRCLING	640-1 578 (600-1)	680-1 618 (700-1)	720-1¾ 658 (700-1¾)	720-2 658 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN JOSE, CALIFORNIA AL-693 (FAA)

RNAV (GPS) Y RWY 12R

WAAS CH 90106 W12A	APP CRS 123°	Rwy Idg 12R 8584 TDZE 46 Apt Elev 62	Rwy Idg 12L 8810 TDZE 44 Apt Elev 62	Rwy Idg 11 4599 TDZE 49 Apt Elev 62

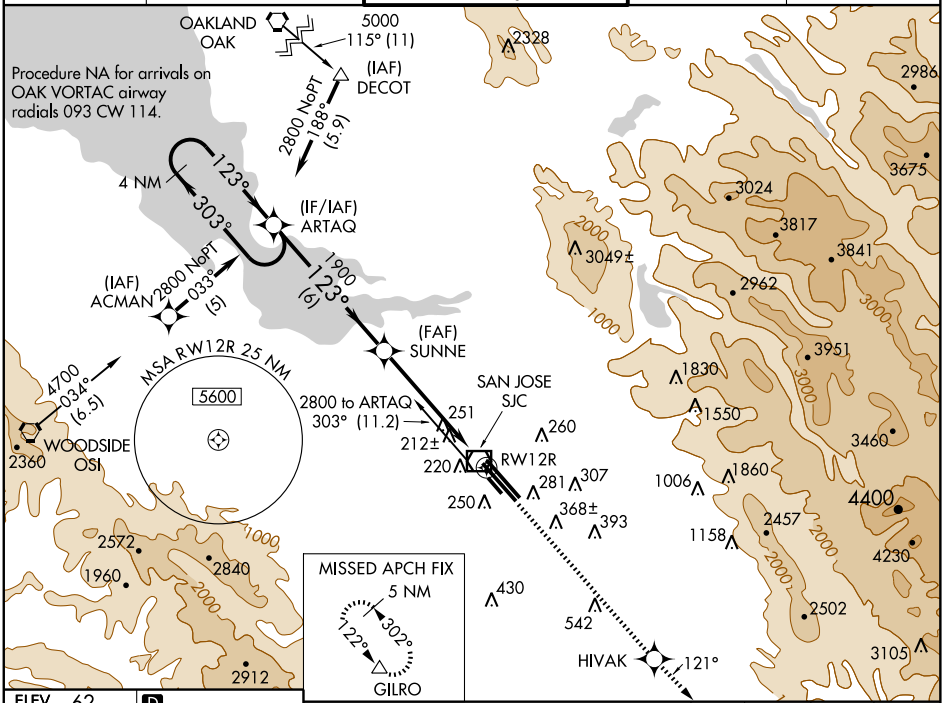
SAN JOSE / NORMAN Y. MINETA SAN JOSE INTL (SJC)

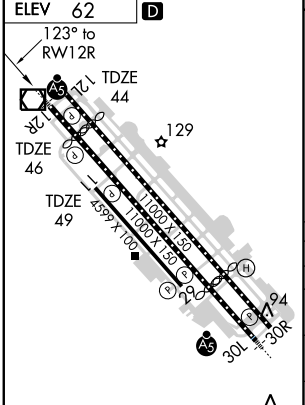
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP -0.3 NA.

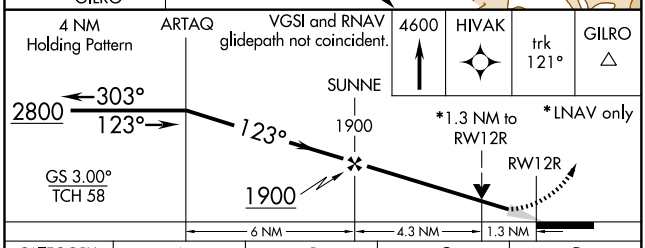
MALSR Rwy 12R

MISSED APPROACH: Climb to 4600 direct HIVAK and via track 121° to GILRO and hold.

ATIS	NORCAL APP CON	SAN JOSE TOWER ★	GND CON	CLNC DEL
126.95	120.1 290.25	124.0 (CTAF) L 257.6	121.7	118.0







CATEGORY	A	B	C	D
LPV DA	298-½ 252 (300-½)			
LNAV/VNAV DA	482-1 436 (500-1)			
LNAV MDA	520-½ 474 (500-½)		520-¾ 474 (500-¾)	520-1 474 (500-1)
SIDESTEP 12L	520-1 476 (500-1)		520-1½ 476 (500-1½)	520-2 476 (500-2)
SIDESTEP 11	520-1 471 (500-1)		520-1½ 471 (500-1½)	520-2 471 (500-2)
CIRCLING	NA			

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN JOSE, CALIFORNIA AL-693 (FAA)

RNAV (GPS) Y RWY 30L

WAAS CH 97306 W30A	APP CRS 303°	Rwy Idg 30L 7605 TDZE 57 Apt Elev 62	Rwy Idg 30R 7479 TDZE 55 Apt Elev 62	Rwy Idg 29 4599 TDZE 52 Apt Elev 62

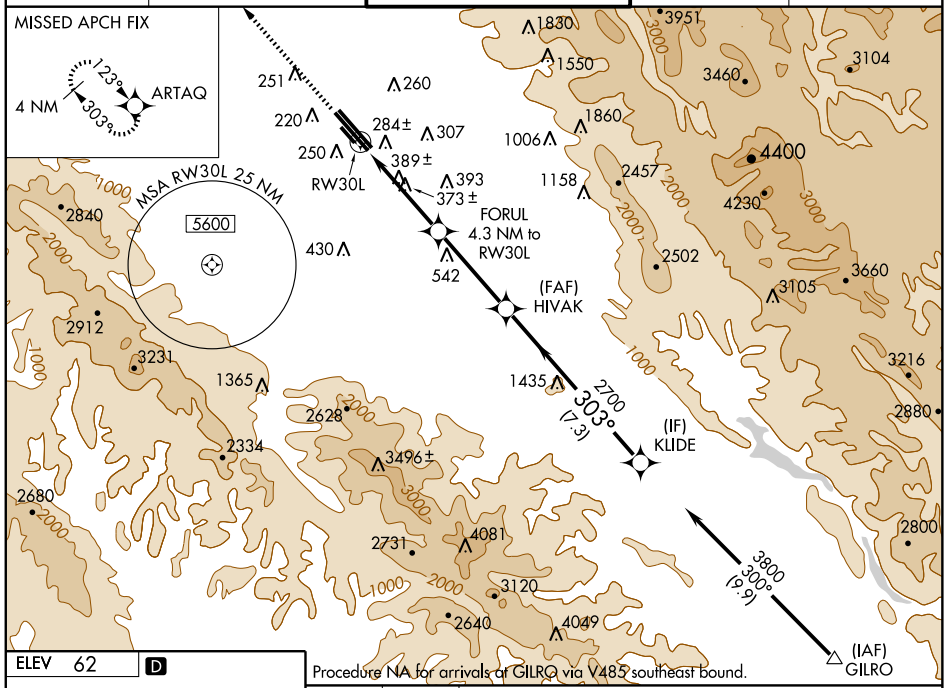
SAN JOSE / NORMAN Y. MINETA SAN JOSE INTL (SJC)

T A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP -0.3 NA.

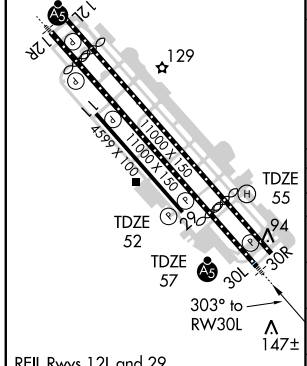
MALSR Rwy 30L A5

MISSED APPROACH: Climb to 2800 direct ARTAQ and hold.

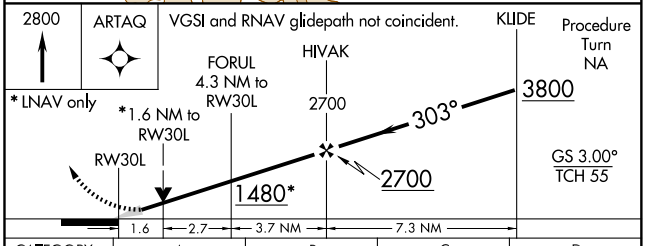
ATIS	NORCAL APP CON	SAN JOSE TOWER ★	GND CON	CLNC DEL
126.95	120.1 290.25	124.0 (CTAF) L 257.6	121.7	118.0



ELEV 62 D



REIL Rwys 12L and 29
MIRL Rwy 11-29 L
HIRL Rwys 12L-30R and 12R-30L L



CATEGORY	A	B	C	D
LPV DA	334/24 277 (300-½)			
LNAV/VNAV DA	586/60 529 (600-1¼)			
LNAV MDA	640/24 583 (600-½)		640/50 583 (600-1)	640/60 583 (600-1¼)
SIDESTEP 30R	640-1 585 (600-1)		640-1½ 585 (600-1½)	640-2 585 (600-2)
SIDESTEP 29	640-1 588 (600-1)		640-1½ 588 (600-1½)	640-2 588 (600-2)
CIRCLING	NA			

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	8584
123°	TDZE	46
	Apt Elev	62

RNAV (RNP) Z RWY 12R

SAN JOSE / NORMAN Y. MINETA SAN JOSE INTL (SJC)

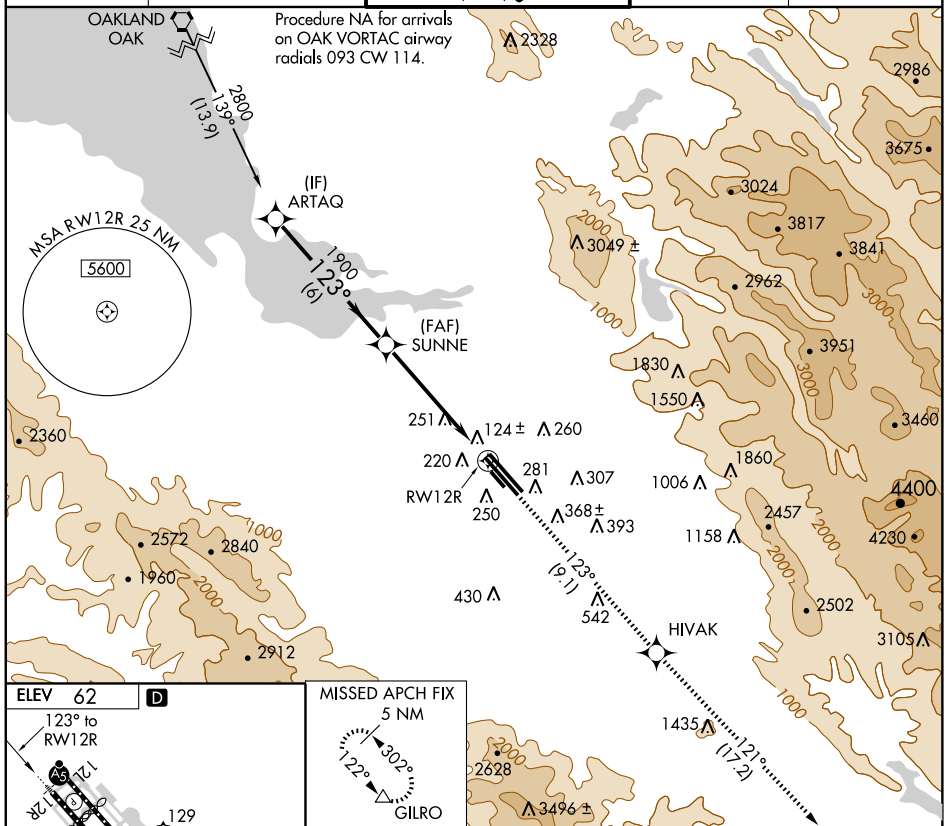
T NA

GPS required. For uncompensated Baro-VNAV systems, procedure NA below 0°C (32°F) or above 48°C (119°F). For inoperative MALSR, increase RNP 0.30 visibility to 1¼ mile all Cats.

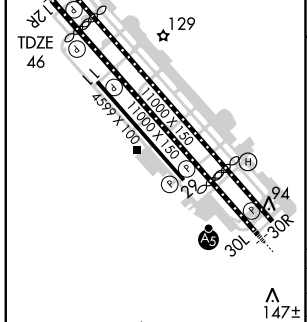
MALSR

MISSED APPROACH: Climb to 4600 via 123° track to HIVAK and via 121° track to GILRO and hold.

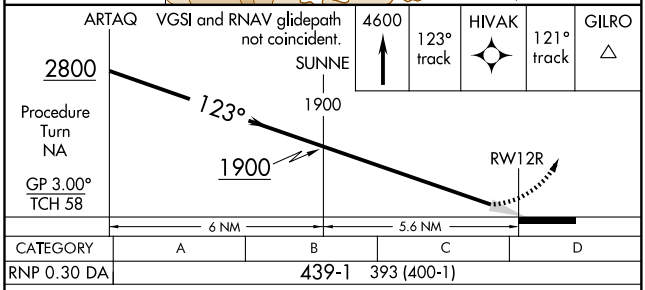
ATIS	NORCAL APP CON	SAN JOSE TOWER ★	GND CON	CLNC DEL
126.95	120.1 290.25	124.0 (CTAF) L 257.6	121.7	118.0



ELEV 62 D



MISSED APCH FIX 5 NM 302° 122° GILRO



CATEGORY	A	B	C	D
RNP 0.30 DA	439-1	393 (400-1)		

REIL Rwys 12L and 29
MIRL Rwy 11-29 L
HIRL Rwys 12L-30R and 12R-30L L

SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	7605
303°	TDZE	46
	Apt Elev	62

RNAV (RNP) Z RWY 30L

SAN JOSE / NORMAN Y. MINETA SAN JOSE INTL (SJC)

NA

GPS required. For uncompensated Baro-VNAV systems, procedure NA below 0°C (32°F) or above 48°C (119°F). For inoperative MALSR increase RNP 0.30 visibility to 1¾ mile all Cats.

MALSR

MISSED APPROACH: Climb to 2800 via 303° track to ARTAQ and hold.

ATIS	NORCAL APP CON	SAN JOSE TOWER ★	GND CON	CLNC DEL
126.95	120.1 290.25	124.0 (CTAF) L 257.6	121.7	118.0

MISSED APCH FIX

4 NM 123° ARTAQ 303°

303° (12.8)

MSA RW30L 25 NM

5600

RW30L

(FAF) HIVAK

1435 2700 303° (7.3)

(IF) KLIDE

3800 300° (9.9)

(IAF) GILRO

Procedure NA for arrivals at GILRO via V485 southeast bound.

ELEV 62 D

129

11000 X 150

4599 X 100

12L 12R 30L 30R 29 11

TDZE 46

303° to RW30L

147±

REIL Rwys 12L and 29

MIRL Rwy 11-29 L

HIRL Rwys 12L-30R and 12R-30L L

2800 303° ARTAQ

VGSI and RNAV glidepath not coincident.

KLIDE Procedure Turn NA

HIVAK 2700 303° 3800

RW30L 2700

GP 3.00° TCH 55

8 NM 7.3 NM

CATEGORY	A	B	C	D
RNP 0.30 DA	544/60 487 (500-1¼)			

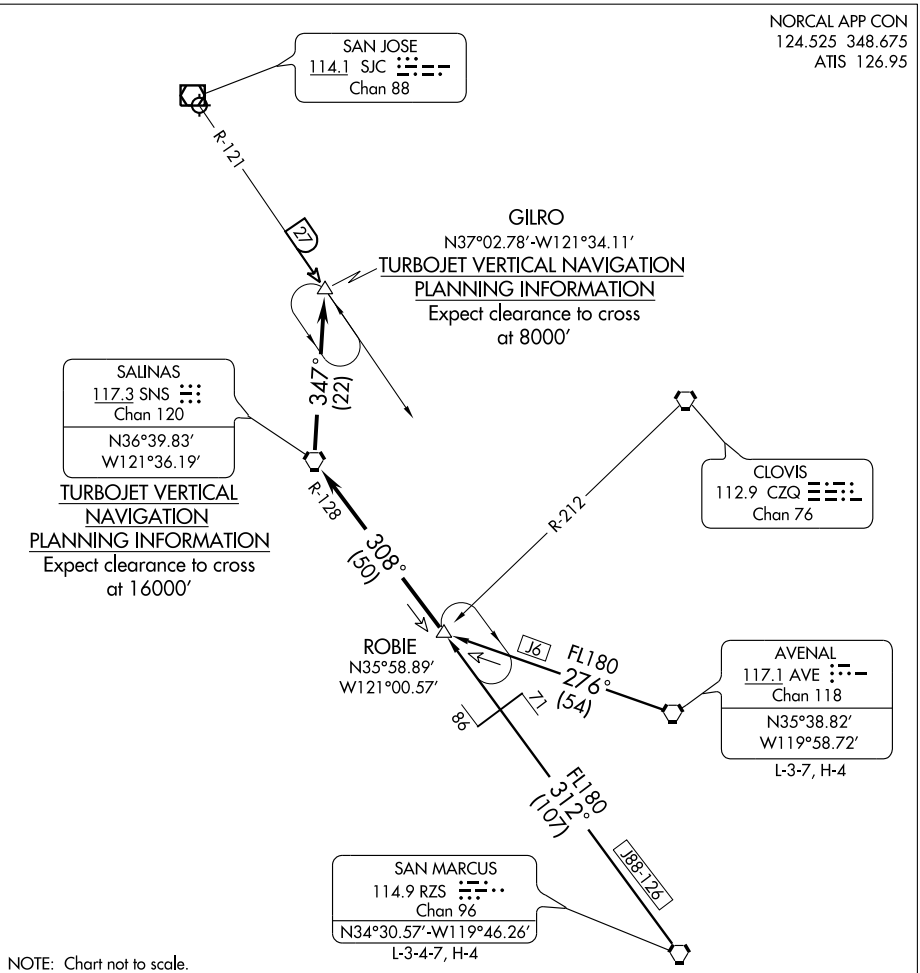
SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

SW-2, 14 JAN 2010 to 11 FEB 2010

ROBIE TWO ARRIVAL

ST-693 (FAA)

NORMAN Y. MINETA SAN JOSE INTL
SAN JOSE, CALIFORNIA



AVENAL TRANSITION (AVE.ROBIE2): From over AVE VORTAC via AVE R-276 to ROBIE INT. Thence . . . .

SAN MARCUS TRANSITION (RZS.ROBIE2): From over RZS VORTAC via RZS R-312 to ROBIE INT. Thence . . . .

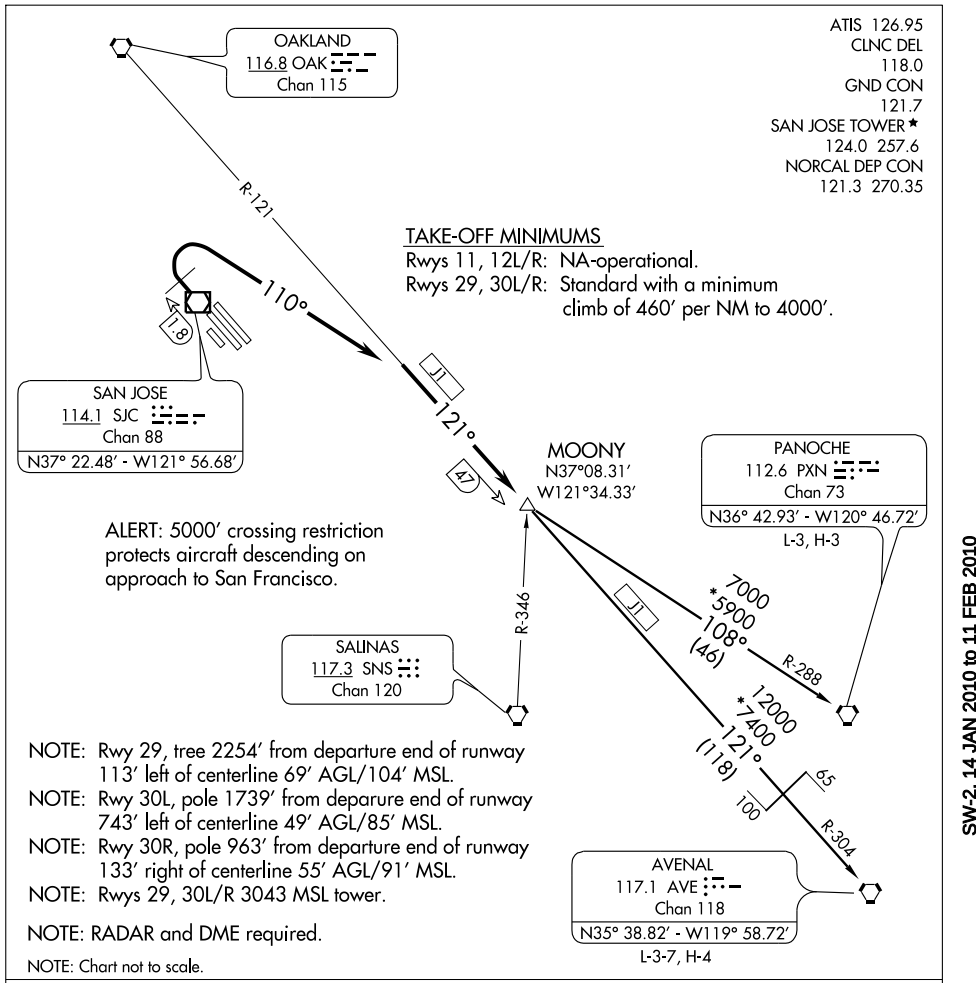
. . . . From over ROBIE INT via SNS R-128 to SNS VORTAC. Then via SNS R-347 to GILRO INT/DME fix. Expect the ILS Rwy 30L approach.

For Rwy 12 operations: Expect routing via SNS direct SJC VOR/DME and radar vectors to the final approach course. Expect clearance to cross SNS at 16000 and cross 25 NM SE SJC at 8000'.

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN JOSE NINE DEPARTURE

SAN JOSE/ NORMAN Y. MINETA SAN JOSE INTL (SJC)
SL-693 (FAA)
SAN JOSE, CALIFORNIA



NOTE: Rwy 29, tree 2254′ from departure end of runway 113′ left of centerline 69′ AGL/104′ MSL.
NOTE: Rwy 30L, pole 1739′ from deparure end of runway 743′ left of centerline 49′ AGL/85′ MSL.
NOTE: Rwy 30R, pole 963′ from departure end of runway 133′ right of centerline 55′ AGL/91′ MSL.
NOTE: Rwys 29, 30L/R 3043 MSL tower.

NOTE: RADAR and DME required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 11, 12L/R: NA

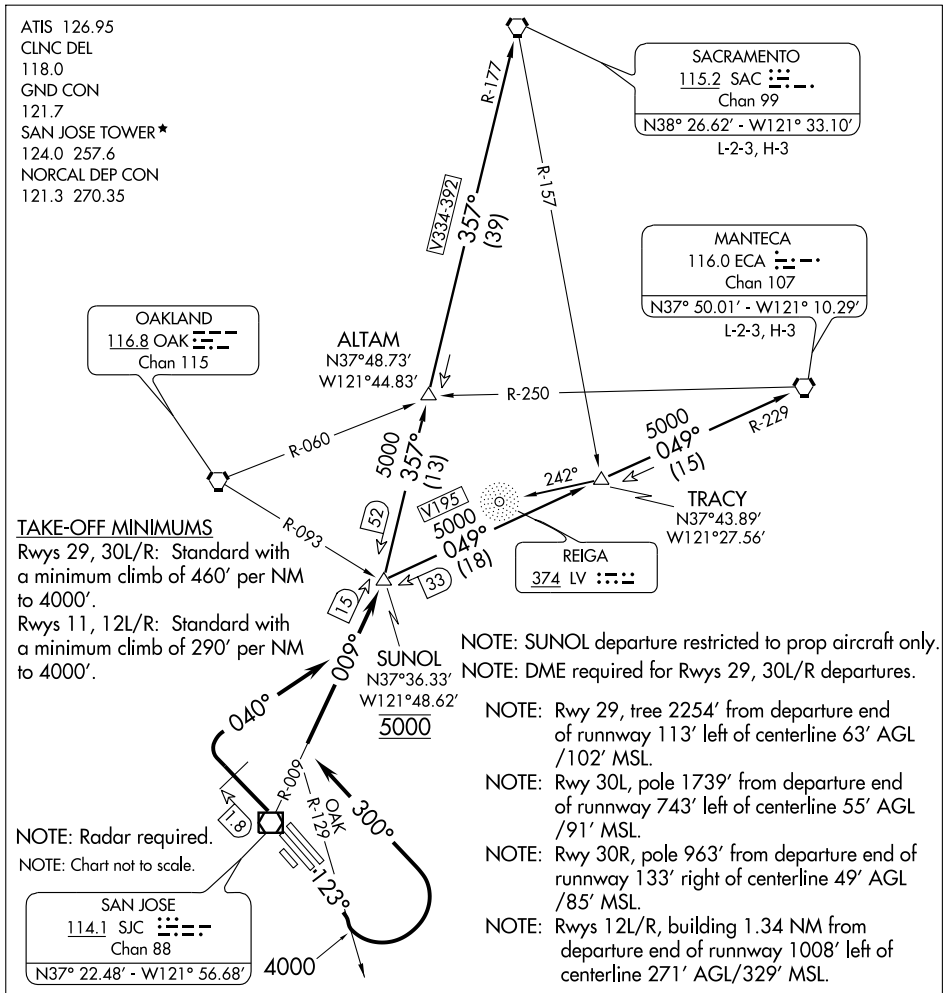
TAKE-OFF RUNWAYS 29, 30L/R: Climb via runway heading to SJC 1.8 DME northwest of SJC VOR/DME. Then turn right heading 110° to intercept and proceed via OAK R-121 to MOONY INT. Thence....

.... via (transition) or (assigned route). Maintain 5000, expect clearance to filed altitude ten minutes after departure.

AVENAL TRANSITION (SJC9.AVE): From over MOONY INT via OAK R-121 and AVE R-304 to AVE VORTAC.

PANOCHE TRANSITION (SJC9.PXN): From over MOONY INT via PXN R-288 to PXN VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 11, 12L/R: Climb via heading 123° to intercept and proceed via OAK R-129 to 4000. Then turn left heading 300° for radar vectors to intercept and proceed via SJC R-009 to SUNOL INT. Thence....

TAKE-OFF RUNWAYS 29, 30L/R: Climb runway heading at SJC 1.8 DME northwest of SJC VOR/DME, turn right heading 040° to intercept and proceed via SJC R-009 to SUNOL INT. Thence....

...Cross SUNOL INT at 5000', then via (transition) or (assigned route).

MANTECA TRANSITION (SUNOL6.ECA): From over SUNOL INT via ECA R-229 to ECA VORTAC.

SACRAMENTO TRANSITION (SUNOL6.SAC): From over SUNOL INT via SAC R-177 to SAC VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN JOSE, CALIFORNIA AL-693 (FAA)

VOR/DME RWY 30L

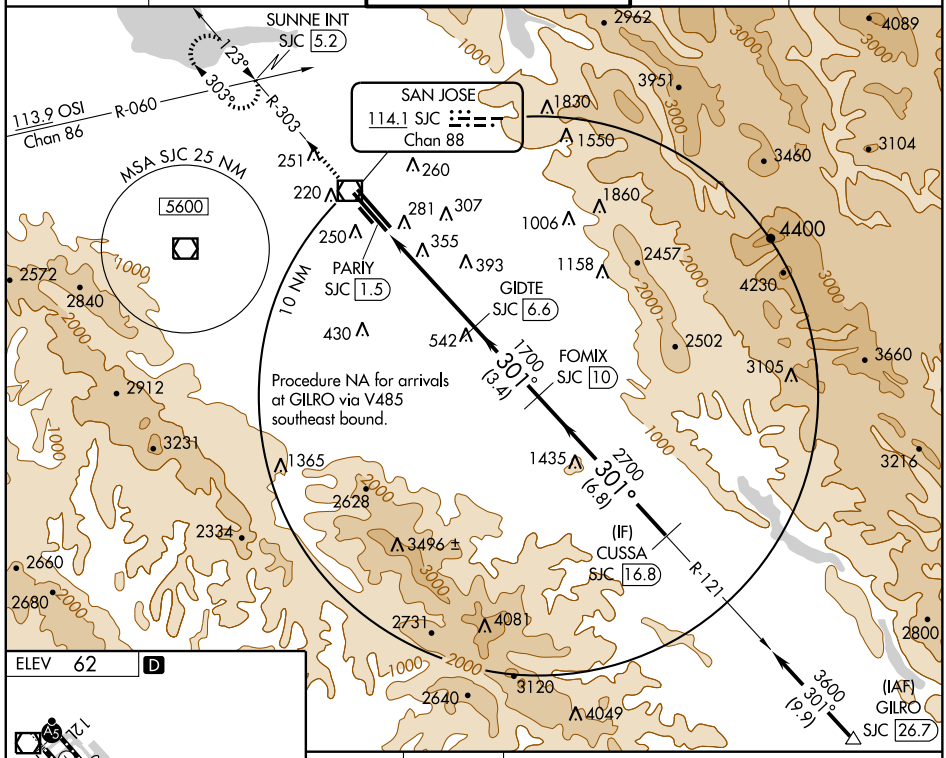
VOR/DME SJC	APP CRS	Rwy Idg 30L 7605	Rwy Idg 30R 7479	Rwy Idg 29 4599
114.1 Chan 88	301°	TDZE 57 Apt Elev 62	TDZE 55 Apt Elev 62	TDZE 52 Apt Elev 62

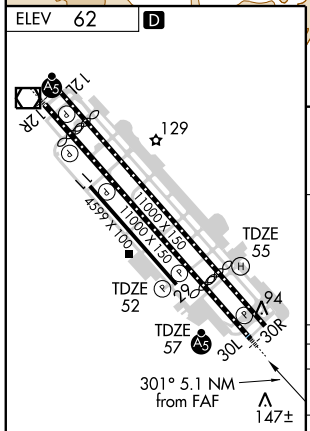
SAN JOSE / NORMAN Y. MINETA SAN JOSE INTL (SJC)

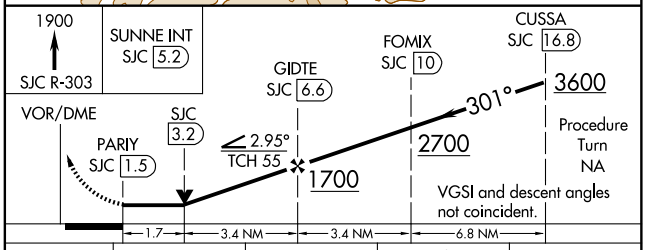
MALSR Rwy 30L

MISSED APPROACH: Climb to 1900 via SJC VOR/DME R-303 to SUNNE Int/SJC 5.2 DME and hold.

ATIS	NORCAL APP CON	SAN JOSE TOWER ★	GND CON	CLNC DEL
126.95	120.1 290.25	124.0 (CTAF) L 257.6	121.7	118.0







CATEGORY	A	B	C	D
S-30L	660/24 603 (600-½)		660/60 603 (600-1¼)	660-1½ 603 (600-1½)
SIDESTEP RWY 29	660-1 608 (600-1)		660-1¾ 608 (600-1¾)	660-2 608 (600-2)
SIDESTEP RWY 30R	660-1 605 (600-1)		660-1¾ 605 (600-1¾)	660-2 605 (600-2)
CIRCLING	NA			

REIL Rwys 12L and 29
MIRL Rwy 11-29 L
HIRL Rwys 12L-30R and 12R-30L L

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN JOSE, CALIFORNIA

AL-693 (FAA)

VOR/DME SJC	APP CRS	Rwy Idg	7479
114.1	298°	TDZE	53
Chan 88		Apt Elev	59

VOR/DME RWY 30R

SAN JOSE / NORMAN Y. MINETA SAN JOSE INTL (SJC)

MISSED APPROACH: Climb to 2100 via SJC VOR/DME R-303 to SUNNE INT/SJC 5 DME and hold.

ATIS	NORCAL APP CON	SAN JOSE TOWER ★	GND CON	CLNC DEL
126.95	120.1 290.25	124.0 (CTAF) L 257.6	121.7	118.0

SUNNE INT SJC 5

R-303

123°

303°

113.9 OSI

R-061

Chan 86

10 NM

CISUN SJC 1.5

SAN JOSE

114.1 SJC

Chan 88

FASIK SJC 6.6

298° (3.4)

HARNA SJC 10

298° (6.8)

FINOR SJC 16.8

R-118

MSA SJC 25 NM

5600

4300 to Finor

343° (2.5) and

298° (8.1)

(IAF)

GILRO

ELEV 59

D

129

12L

30L

30R

TDZE 53

94

298° 5.1 NM from FAF

147±

REIL Rwys 12L and 29

MIRL Rwy 11-29 L

HIRL Rwys 12L-30R and 12R-30L L

2100

SJC R-303

SUNNE INT

VGSI and descent angles not coincident

VOR/DME

SJC 3.2

CISUN SJC 1.5

3.30°

TCH 69

FASIK SJC 6.6

HARNA SJC 10

FINOR SJC 16.8

298°

4300

2600

1900

Procedure Turn NA

1.7 NM | 3.4 NM | 3.4 NM | 6.8 NM

CATEGORY	A	B	C	D
S-30R	660-1 607 (700-1)		660-1¾ 607 (700-1¾)	660-2 607 (700-2)
CIRCLING	660-1 601 (700-1)	680-1 621 (700-1)	680-1¾ 621 (700-1¾)	680-2 621 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

SAN JOSE, CALIFORNIA — AL-693 (FAA)

VOR RWY 12R

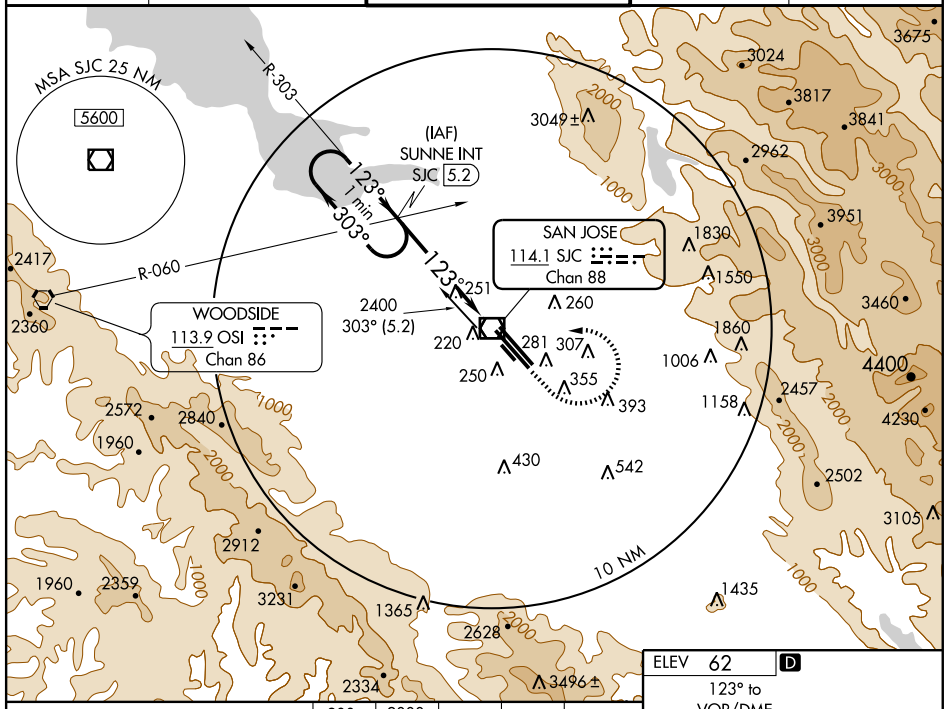
SAN JOSE / NORMAN Y. MINETA SAN JOSE INTL (SJC)

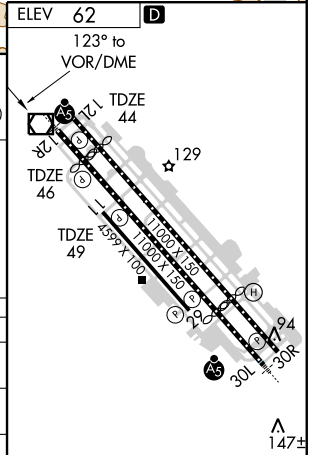
VOR/DME SJC	APP CRS	Rwy Idg 12R	Rwy Idg 12L	Rwy Idg 11
114.1	123°	8584	8810	4599
Chan 88		TDZE 46	TDZE 44	TDZE 49
		Apt Elev 62	Apt Elev 62	Apt Elev 62

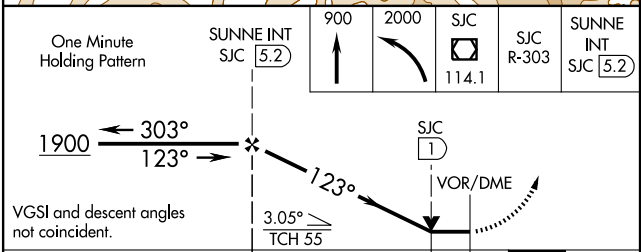
MALSR Rwy 12R

MISSED APPROACH: Climb to 900, then climbing left turn to 2000, direct SJC VOR/DME and R-303 to SUNNE Int/SJC 5.2 DME and hold.

ATIS	NORCAL APP CON	SAN JOSE TOWER ★	GND CON	CLNC DEL
126.95	120.1 290.25	124.0 (CTAF) L 257.6	121.7	118.0

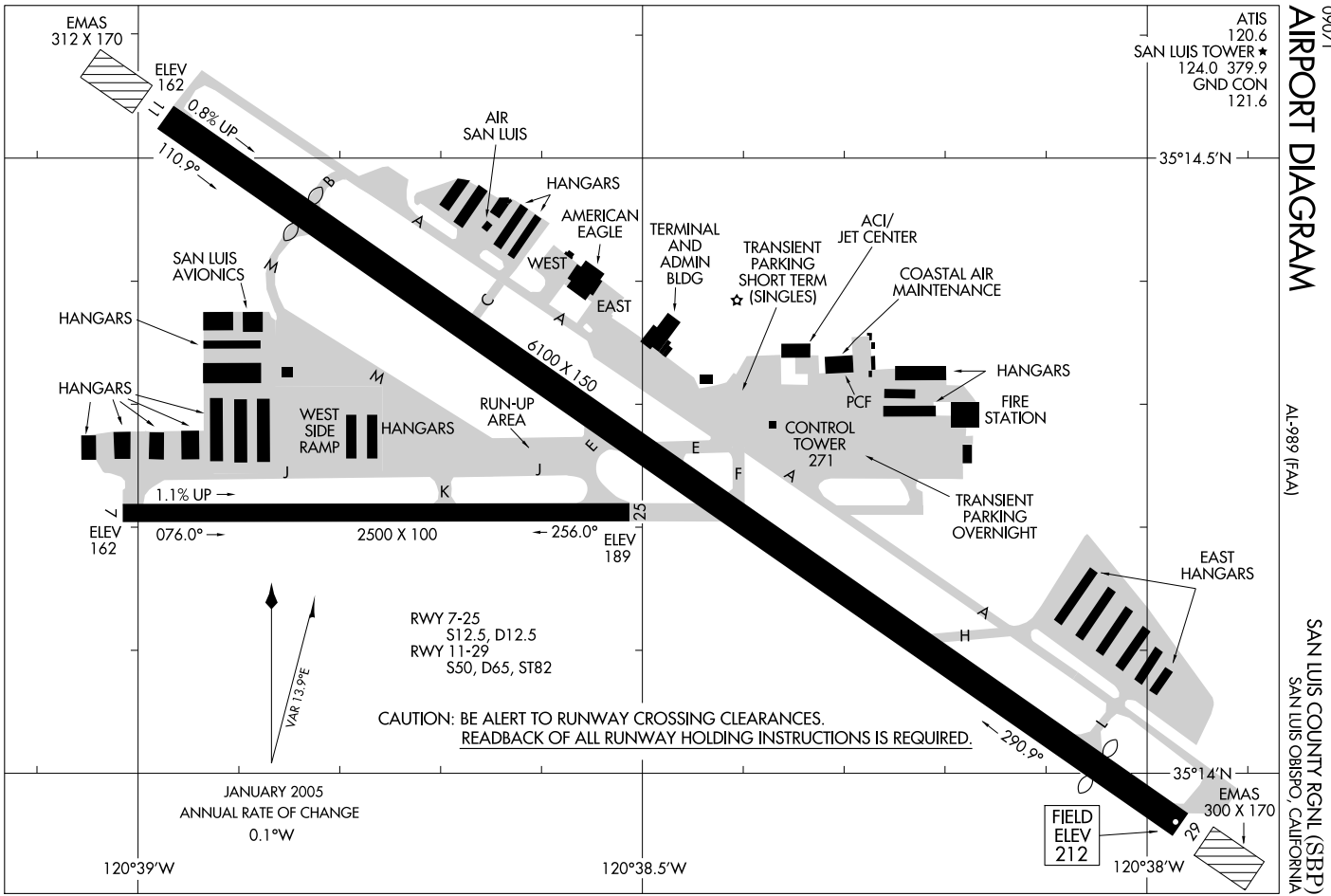






CATEGORY	A	B	C	D
S-12R	540-½ 494 (500-½)		540-¾ 494 (500-¾)	540-1 494 (500-1)
SIDESTEP RWY 12L	540-1 496 (500-1)		540-2 496 (500-2)	
SIDESTEP RWY 11	540-1 491 (500-1)		540-2 491 (500-2)	
CIRCLING	640-1 578 (600-1)	680-1 618 (700-1)	720-1¾ 658 (700-1¾)	720-2 658 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010



AIRPORT DIAGRAM

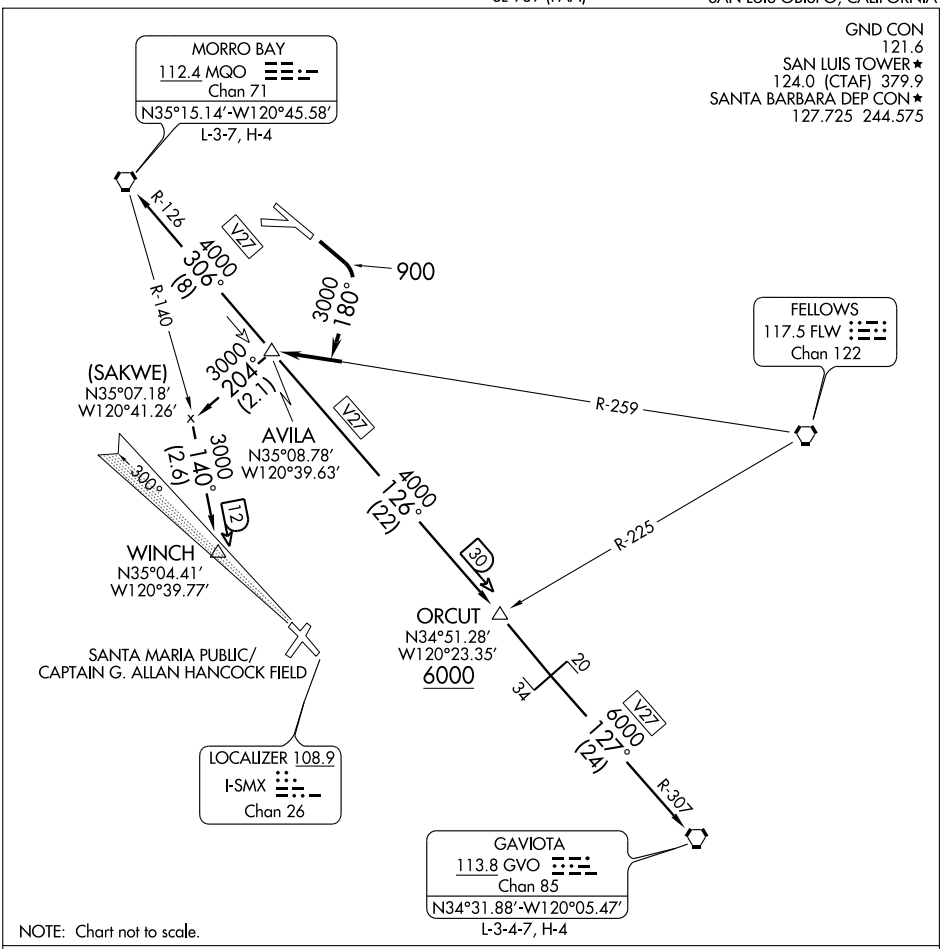
09001

AL-989 (FAA)

SAN LUIS COUNTY RGNL (SBP)

SAN LUIS OBISPO, CALIFORNIA

AVILA THREE DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 11: Maintain runway heading to 900', then climbing right turn to 3000' or assigned altitude, heading 180° to intercept FLW R-259 to AVILA INT, then via (transition) or (assigned route).

GAVIOTA TRANSITION (AVILA3.GVO): From over AVILA INT via V27 to GVO VORTAC.

MORRO BAY TRANSITION (AVILA3.MQO): From over AVILA INT via V27 to MQO VORTAC.

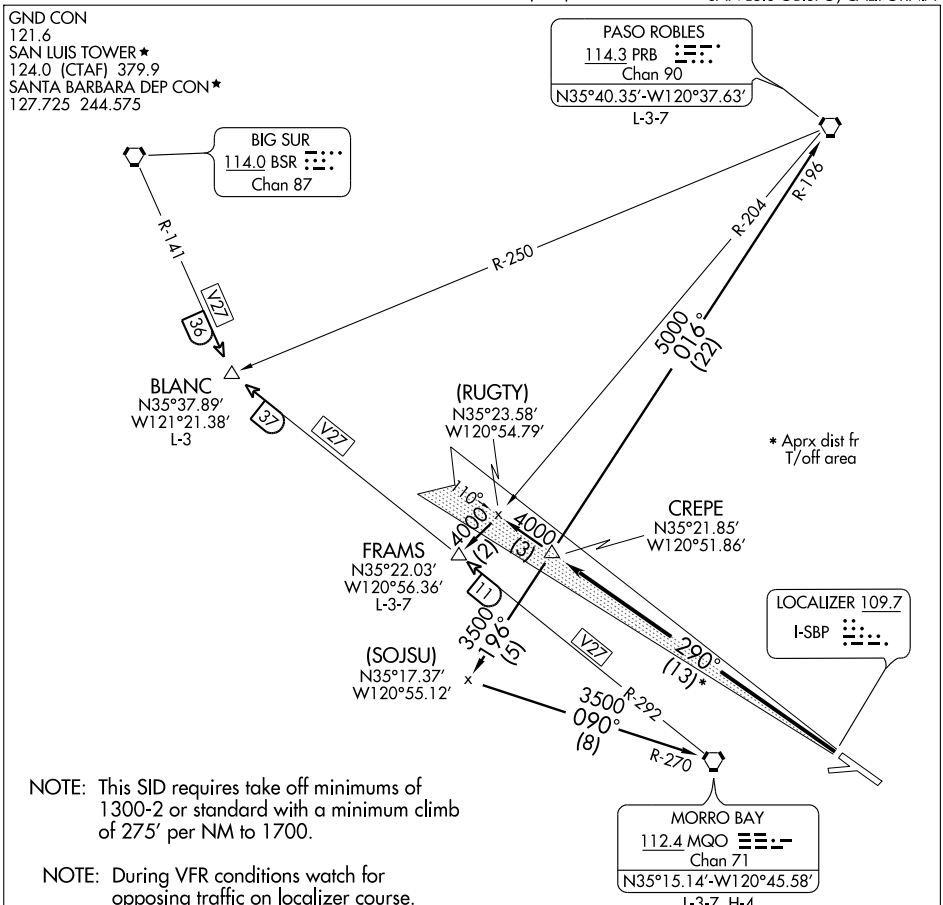
WINCH TRANSITION (AVILA3.WINCH): From over AVILA INT via heading 204° 2.1 NM, to intercept MQO R-140 to WINCH INT 2.6 NM.

SW-3, 14 JAN 2010 to 11 FEB 2010

CREPE THREE DEPARTURE

SL-989 (FAA)

SAN LUIS COUNTY RGNL (SBP)
SAN LUIS OBISPO, CALIFORNIA



NOTE: This SID requires take off minimums of 1300-2 or standard with a minimum climb of 275' per NM to 1700.

NOTE: During VFR conditions watch for opposing traffic on localizer course.

NOTE: This procedure applicable to Runway 29 departures only.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 29: Climb via San Luis Obispo localizer I-SBP west course to CREPE INT; thence via (transition) or (assigned route).

FRAMS TRANSITION (CREPE3.FRAMS): From over CREPE INT via I-SBP LOC west course and PRB R-204 to FRAMS INT.

MORRO BAY TRANSITION (CREPE3.MQO): From over CREPE INT via PRB R-196 and MQO R-270 to MQO VORTAC.

PASO ROBLES TRANSITION (CREPE3.PRB): From over CREPE INT via PRB R-196 to PRB VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010

SAN LUIS OBISPO, CALIFORNIA

AL-989 (FAA)

LOC I-SBP	APP CRS	Rwy Idg	5300
109.7	110°	TDZE	195
		Apt Elev	209

ILS RWY 11

SAN LUIS COUNTY RGNL (SBP)

Circling NA north of Rwy 11-29.

MALSR

MISSED APPROACH: Climb to 1200, then climbing right turn to 3000 via heading 175° and MQO R-126 to MQO VORTAC and hold.

ATIS	SANTA BARBARA APP CON★	SAN LUIS TOWER★	GND CON	UNICOM
120.6	127.725 244.575	124.0 (CTAF) 379.9	121.6	122.95

PASO ROBLES 114.3 PRB Chan 90

4000 (NoPT) 196° (2.2)

4000 NoPT to Crepe Int 048° (2.2) and LOC (2.1)

(IAF) FRAMS MQO 11.2

(IAF) OXUNE PRB 19.7

(IAF) CREPE

DOBRA OM/INT

HASBY INT

MORRO BAY 112.4 MQO Chan 71

LOCALIZER 109.7 I-SBP

MSA MQO 25 NM: 200° 4700 5300 290° 3100 3700 020°

10 NM

1940 2761 2935 1985 1409 2832 2868 3198 1271 567± 755 579 451 1819 1417 989 863

SW-3, 14 JAN 2010 to 11 FEB 2010

One Minute Holding Pattern

CREPE INT

DOBRA OM/INT

4000 290° 110°

2182

2400

*1040

*LOC only

GS 3.00° TCH 51

6.9 NM 3.7 NM 2.4 NM

1200	3000	MQO	MQO
↑	175°	R-126	112.4

110° 6.1 NM from FAF

ELEV 209

Rwy 11 ldg 5300′
Rwy 29 ldg 5600′

TDZE 195

0.8% UP 1.1% UP 2500 X 100 6100 X 150

271 231 294± 281

CATEGORY	A	B	C	D
S-ILS 11	395- ½ 200 (200-½)			
S-LOC 11	1040- ½ 845 (900-½)	1040- ¾ 845 (900- ¾)	1040-2 845 (900-2)	1040-2¼ 845 (900-2¼)
CIRCLING	1040-1 831 (900-1)	1040-1¼ 831 (900-1¼)	1120-2¾ 911 (1000-2¾)	1220-3 1011 (1100-3)
HASBY INT MINIMUMS				
S-LOC 11	540- ½ 345 (400-½)			540- ¾ 345 (400- ¾)
CIRCLING	840-1 631 (700-1)	920-1 711 (800-1)	1120-2¾ 911 (1000-2¾)	1220-3 1011 (1100-3)

HIRL Rwy 11-29
REIL Rwy 29

FAF to MAP 6.1 NM

Knots	60	90	120	150	180
Min:Sec	6:06	4:04	3:03	2:26	2:02

SAN LUIS OBISPO, CALIFORNIA

AL-989 (FAA)

RNAV (GPS) RWY 11

SAN LUIS COUNTY RGNL (SBP)

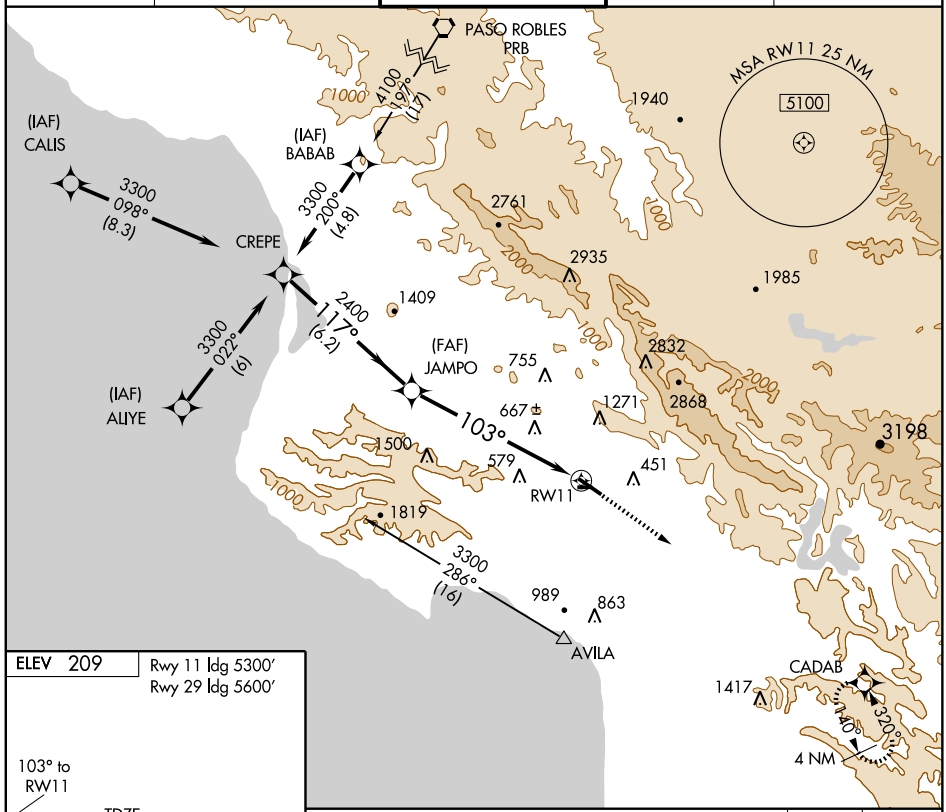
APP CRS	Rwy Idg	5300
103°	TDZE	195
	Apt Elev	209

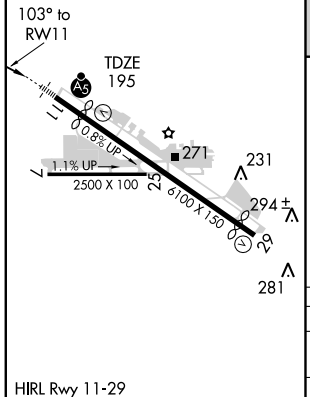
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.
NA Circling NA north of Rwy 11-29.
Inoperative table does not apply to LNAV Cat A.

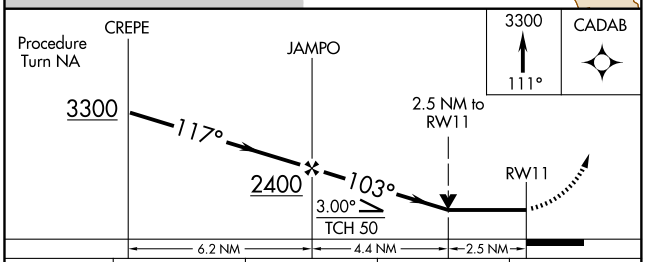
MALSR

MISSED APPROACH: Climb to 3300 via 111° course to CADAB WP and hold.

ATIS	SANTA BARBARA APP CON★	SAN LUIS TOWER★	GND CON	UNICOM
120.6	127.725 244.575	124.0 (CTAF) 379.9	121.6	122.95







CATEGORY	A	B	C	D
LNAV MDA	1000-1 805 (800-1)	1000-1¼ 805 (800-1¼)	1000-2¼ 805 (800-2¼)	1000-2½ 805 (800-2½)
CIRCLING	1000-1 791 (800-1)	1040-1¼ 831 (900-1¼)	1100-2¾ 891 (900-2¾)	1220-3 1011 (1100-3)

HIRL Rwy 11-29
REIL Rwy 29

SW-3, 14 JAN 2010 to 11 FEB 2010

SAN LUIS OBISPO, CALIFORNIA

APP CRS	Rwy Idg	5600
290°	TDZE	209
	Apt Elev	209

AL-989 (FAA)

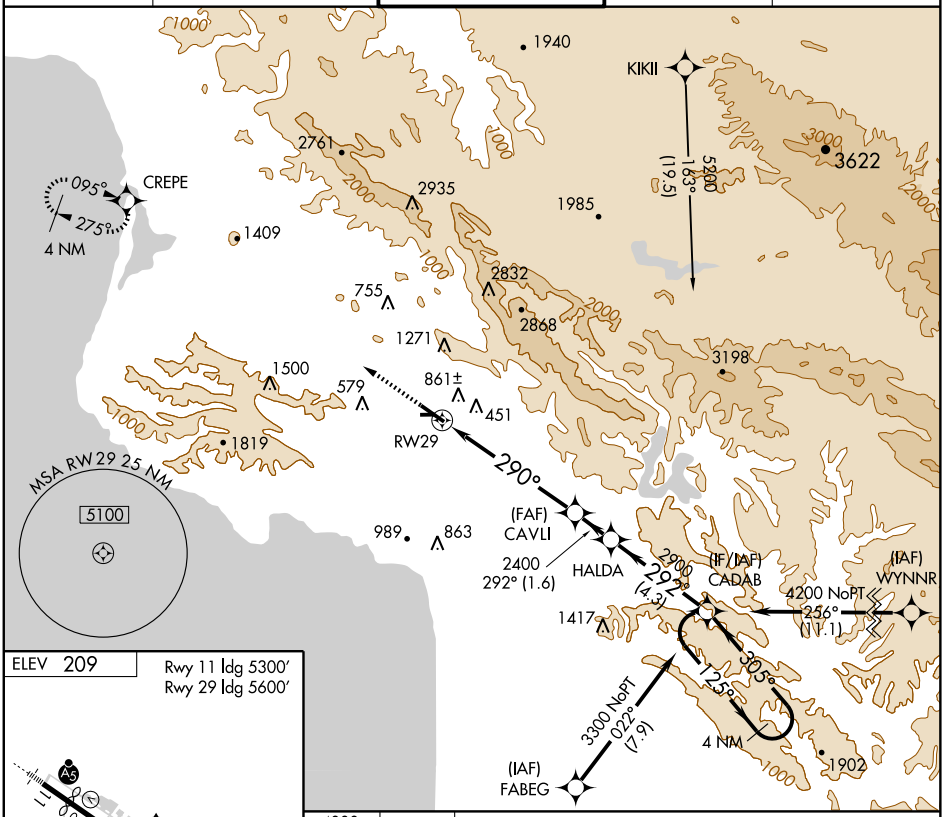
RNAV (GPS) RWY 29

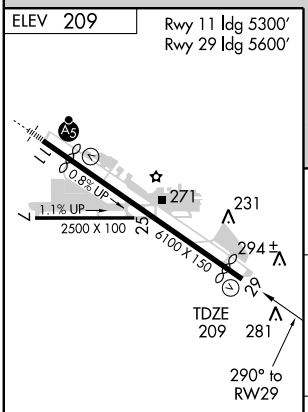
SAN LUIS COUNTY RGNL (SBP)

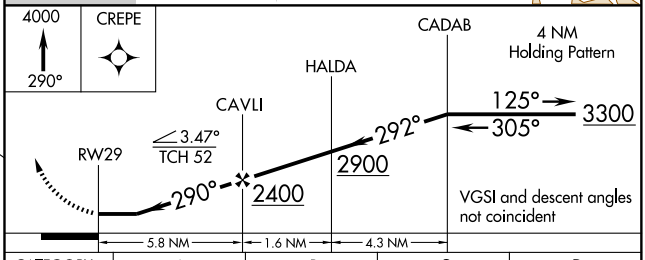
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.
NA Circling NA north of Rwy 11-29.

MISSED APPROACH: Climb to 4000 via 290° course to CREPE WP and hold.

ATIS	SANTA BARBARA APP CON★	SAN LUIS TOWER★	GND CON	UNICOM
120.6	127.725 244.575	124.0 (CTAF) L 379.9	121.6	122.95







CATEGORY	A	B	C	D
LNAV MDA	1040-1 831 (900-1)	1040-1¼ 831 (900-1¼)	1040-2½ 831 (900-2½)	1040-2¾ 831 (900-2¾)
CIRCLING	1180-1¼ 971 (1000-1¼)	1180-1½ 971 (1000-1½)	1180-3 971 (1000-3)	1220-3 1011 (1100-3)

HIRL Rwy 11-29
REIL Rwy 29

SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC MQO 112.4 Chan 71	APP CRS 084°	Rwy Idg N/A TDZE N/A Apt Elev 209

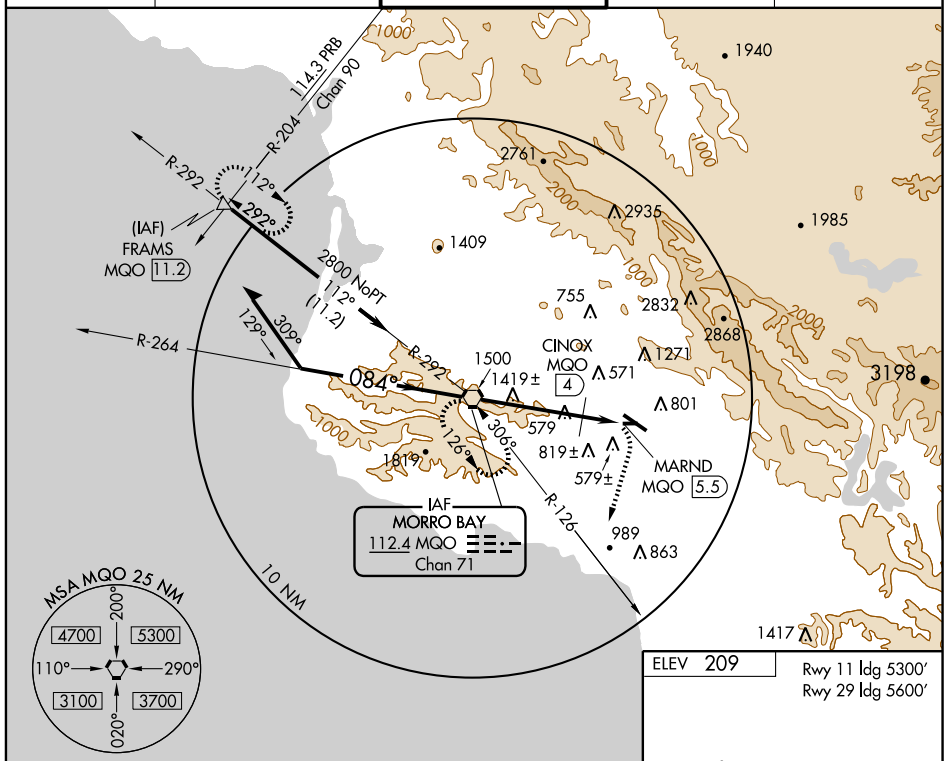
VOR or TACAN-A

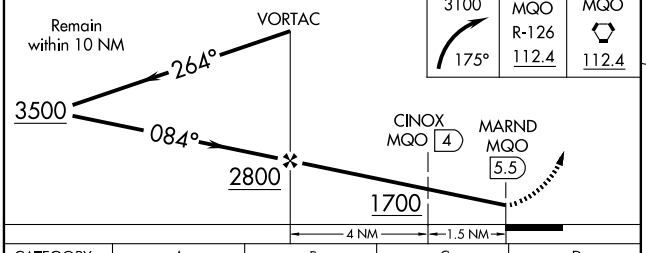
SAN LUIS COUNTY RGNL (SBP)

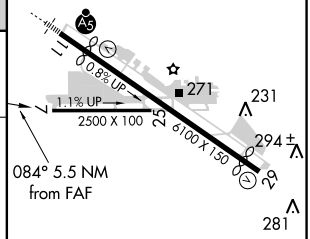
T A — Circling NA north of Rwy 11-29.

MISSED APPROACH: Climbing right turn to 3100 via heading 175° and MQO R-126 to MQO VORTAC and hold. (TACAN Aircraft continue climb to 4000 via MQO R-292 to FRAMS 11.2 DME and hold east, right turns, 292° inbound.)

ATIS	SANTA BARBARA APP CON ★	SAN LUIS TOWER ★	GND CON	UNICOM
120.6	127.725 244.575	124.0 (CTAF) L 379.9	121.6	122.95







CATEGORY	A	B	C	D
CIRCLING	1700-1¼ 1491 (1500-1¼)	1700-1½ 1491 (1500-1½)	1700-3	1491 (1500-3)

HIRL Rwy 11-29
REIL Rwy 29

TACAN OR DME MINIMA

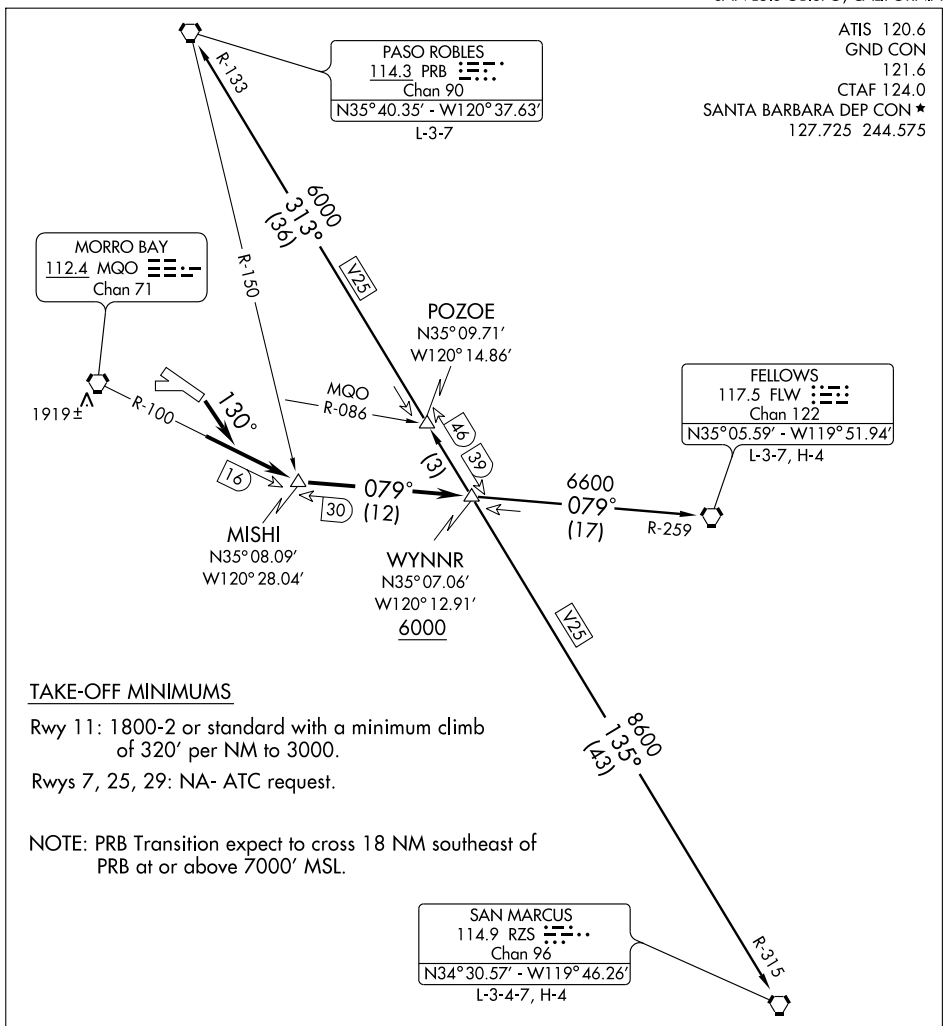
CIRCLING	1120-1¼ 911 (1000-1¼)	1160-2¾ 951 (1000-2¾)	1280-3 1071 (1100-3)

FAF to MAP 5.5 NM

Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50

SW-3, 14 JAN 2010 to 11 FEB 2010

WYNNR TWO DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 11: Turn right heading 130° to intercept and proceed via MQO R-100 to MISHI INT, then via FLW R-259 to WYNNR INT. Thence via (transition) or assigned route.

FELLOWS TRANSITION (WYNNR2.FLW): From over WYNNR INT via FLW R-259 to FLW VORTAC.

PASO ROBLES TRANSITION (WYNNR2.PRB): From over WYNNR INT via PRB R-133 to PRB VORTAC.

SAN MARCUS TRANSITION (WYNNR2.RZS): From over WYNNR INT via RZS R-315 to RZS VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010

SAN MARTIN, CALIFORNIA

AL-9260 (FAA)

APP CRS	Rwy Idg	3100
321°	TDZE	280
	Apt Elev	281

GPS RWY 32

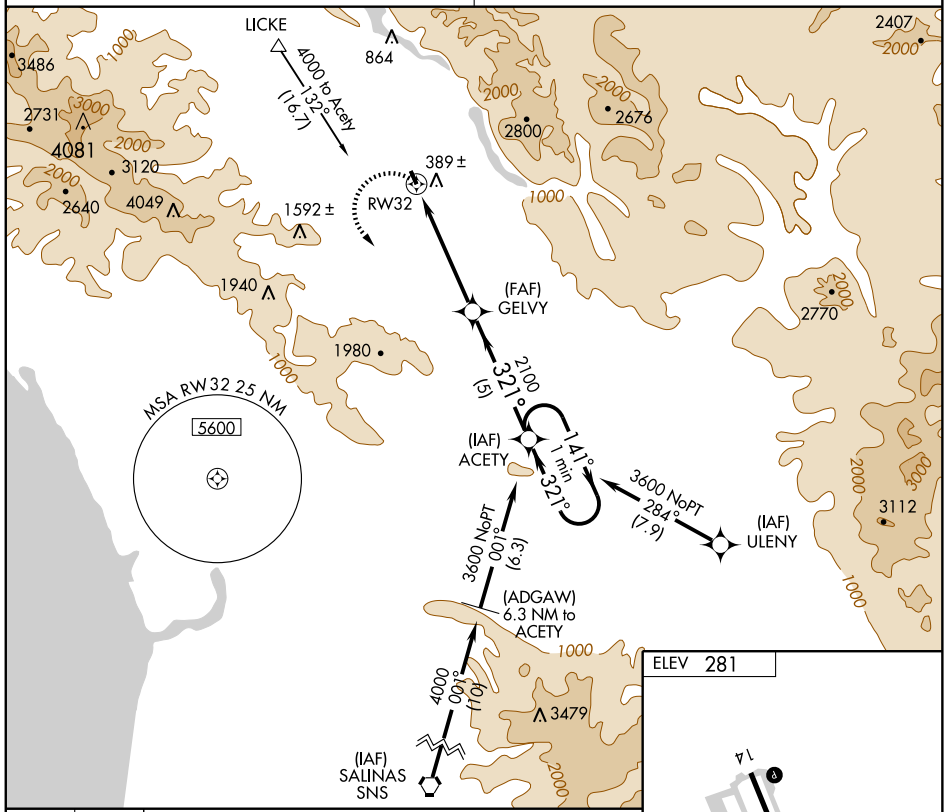
SAN MARTIN/SOUTH COUNTY ARPT OF SANTA CLARA COUNTY (E16)

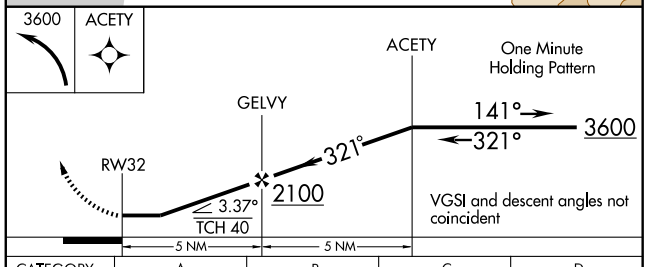
Circling not authorized west of Rwy 14-32.
Use Norman Y. Mineta San Jose Intl altimeter setting.

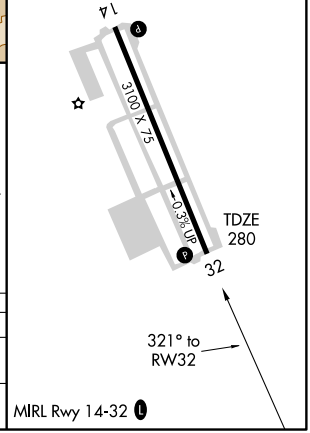
MISSED APPROACH: Climbing left turn to 3600 direct ACETY WP and hold.

NORCAL APP CON
124.525 348.675

UNICOM
122.7 (CTAF) L

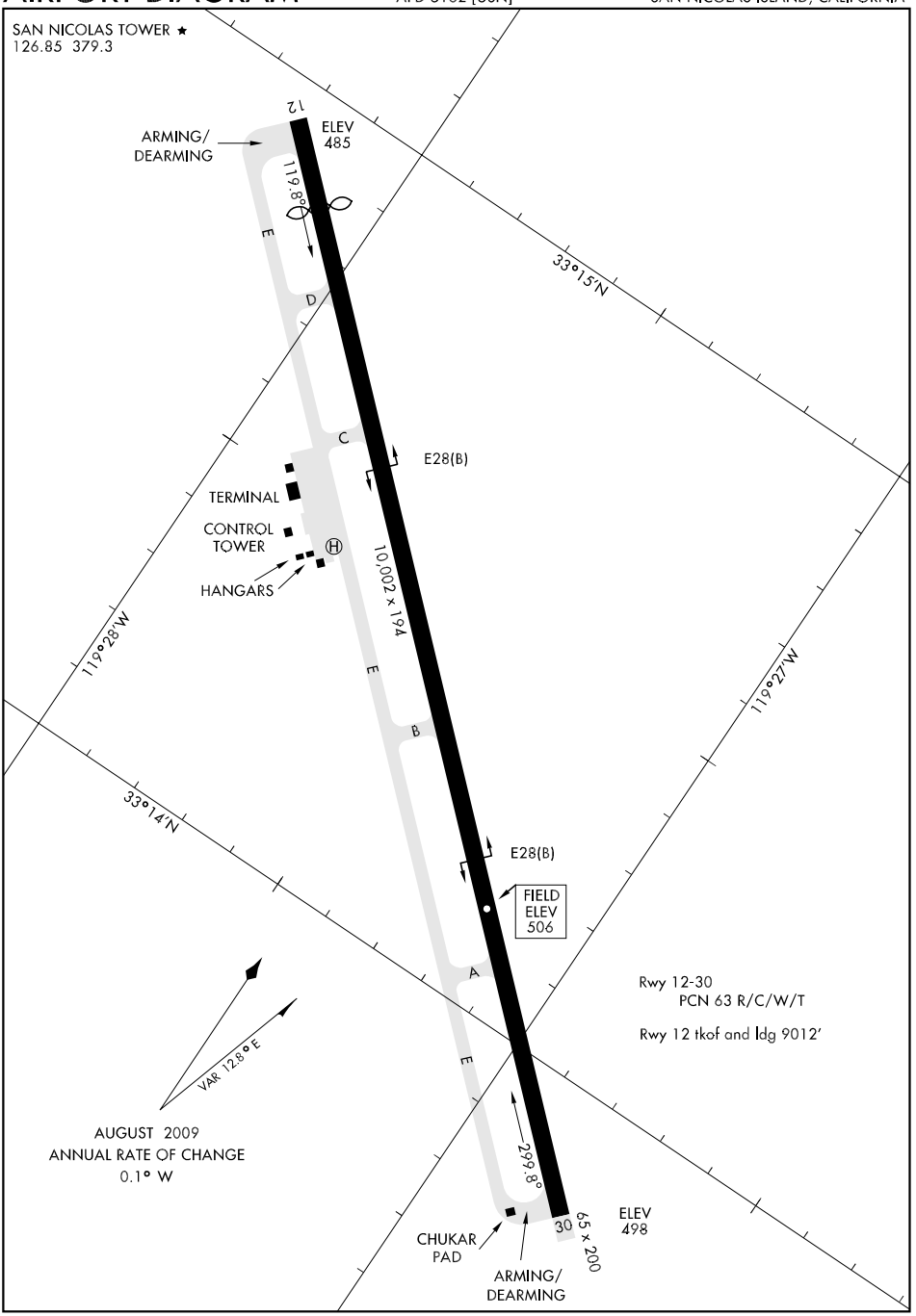






CATEGORY	A	B	C	D
S-32	1320-1¼ 1040 (1100-1¼)	1320-1½ 1040 (1100-1½)	NA	
CIRCLING	1320-1¼ 1039 (1100-1¼)	1320-1½ 1039 (1100-1½)	NA	

SW-2, 14 JAN 2010 to 11 FEB 2010


SAN NICOLAS TOWER ★
126.85 379.3
12
ELEV 485
ARMING/ DEARMING
119.8°
E
D
C
E28(B)
TERMINAL
CONTROL TOWER
HANGARS
10,002 x 194
E
B
E28(B)
FIELD ELEV 506
A
E
299.8°
30
65 x 200
ELEV 498
CHUKAR PAD
ARMING/ DEARMING
33°15'N
33°14'N
119°28'W
119°27'W
Rwy 12-30
PCN 63 R/C/W/T
Rwy 12 tkof and ldg 9012'
VAR 12.8° E
AUGUST 2009
ANNUAL RATE OF CHANGE
0.1° W

ILS Y or LOC/DME RWY 30

LOC I-NSI 109.7	APCH CRS 299°	Rwy ldg 10,002 TDZE 506 Arpt Elev 506

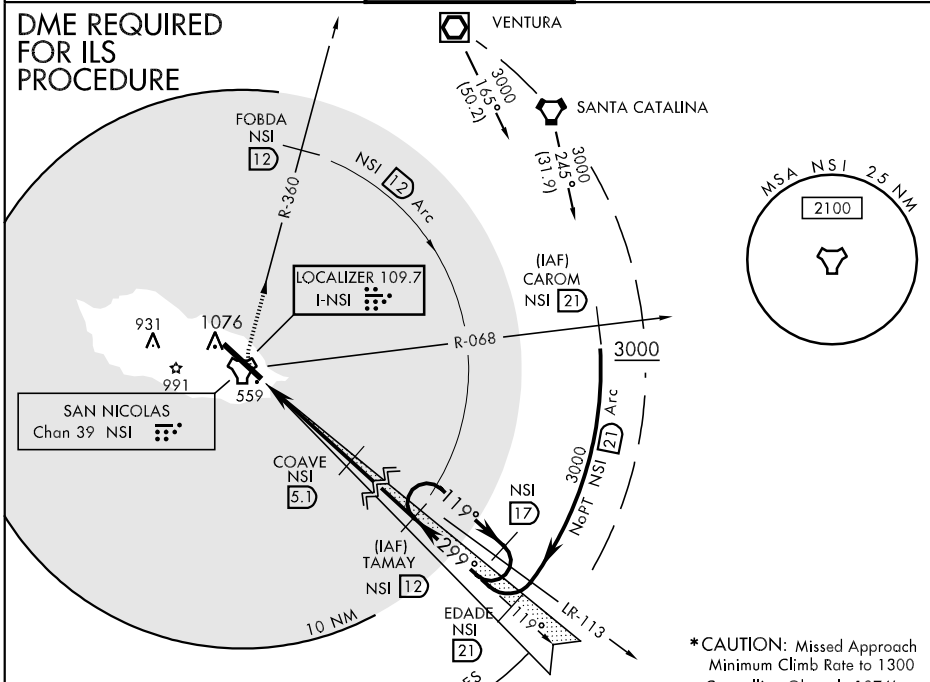
AL-5162 [USN] SAN NICOLAS ISLAND NOLF (NSI)

**Circling not authorized W of Rwy 12-30.

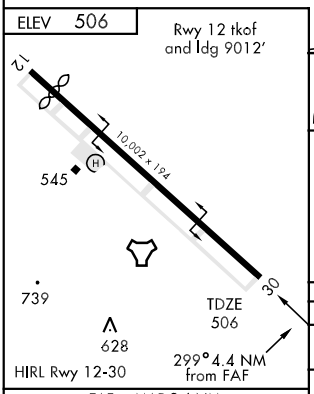
*MISSED APPROACH: Climbing right turn to 3000, intcp NSI R-360 to FOBDA, then arc E on NSI 12 mile arc to TAMAY and hold.

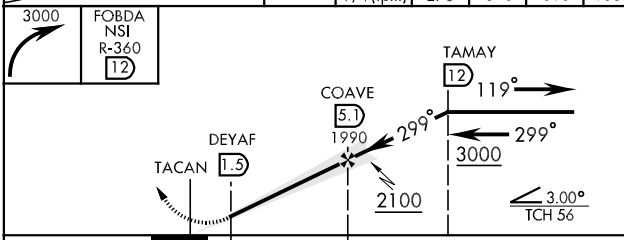
SAN NICOLAS TOWER * 126.85 379.3

DME REQUIRED FOR ILS PROCEDURE



	Knots	60	120	180	240
ILS	V/V(fpm)	240	480	720	960
LOC	V/V(fpm)	270	540	810	1080





CATEGORY	A	B	C	D	E
S-ILS 30		706-¾	200	(200-¾)	
S-LOC 30		760-1	254	(300-1)	
CIRCLING**	860-1 354 (400-1)	960-1 454 (500-1)	960-1½ 454 (500-1½)	1060-2 554 (600-2)	

FAF to MAP 3.6 NM					
Knots	60	90	120	150	180
Min:Sec	3:36	2:24	1:48	1:26	1:12

ILS Z or RNAV (GPS) RWY 30

APCH CRS	Rwy ldg 10,002
299°	TDZE 506
	Arpt Elev 506

AL-5162 [USN] SAN NICOLAS ISLAND NOLF (NSI)

**Circling not authorized W of Rwy 12-30.

*MISSED APPROACH: Climb to 2000 via crs 299° to FEGAV, then climbing rgt turn to 3000 via crs 028° to FOBDA, then turn rgt via crs 103° to CAROM, then turn rgt via crs 215° to TAMAY and hold.

SAN NICOLAS TOWER ★
126.85 379.3

GPS REQUIRED FOR ILS PROCEDURE

VENTURA
108.2 VTU
Chan 19

3000
165°
(50.2)

FOBDA

*CAUTION: Missed Approach Minimum Climb Rate to 1300 (ILS), 1400(RNAV)

	Knots	60	120	180	240
ILS	V/V(fpm)	230	460	690	920
RNAV	V/V(fpm)	360	720	1080	1440

Controlling Obstacle 1076'

FEGAV

LOCALIZER 109.7
I-NSI

931
1076
991

RW30

(IAF)
CAROM

3000
245°
(31.9)

SANTA CATALINA
111.4 SXC
Chan 51

3000
215°
(15.9)

(FAF)
HILER

2100
299°
(6.6)

119°

TAMAY

119°

6 NM

299°

MSA RW30 25 NM
2100

EMERG SAFE ALT 100 NM 10,900

ELEV 506

Rwy 12 tkof and ldg 9012'

12

10,002 x 194

545

TDZE 506

30

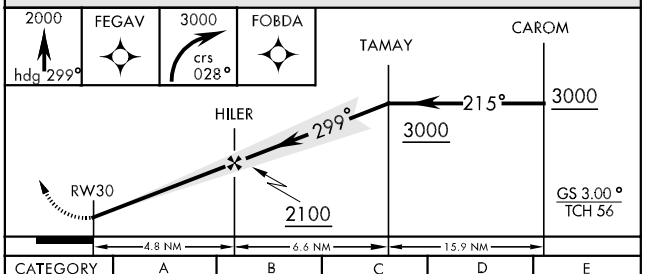
739

559

628

299° to RW30

HIRL Rwy 12-30



CATEGORY	A	B	C	D	E
S-ILS 30	706-¾ 200 (200-¾)				
LNAV MDA	880-1 374 (400-1)			880-1¼ 374 (400-1¼)	880-1½ 374 (400-1½)
CIRCLING **	880-1 374 (400-1)	960-1 454 (500-1)	960-1½ 454 (500-1½)	1060-2 554 (600-2)	

SW-3, 14 JAN 2010 to 11 FEB 2010

TACAN RWY 30

TACAN	APCH CRS	Rwy ldg	10,002
Chan 39	289°	TDZE	506
		Arpt Elev	506

AL-5162 [USN] SAN NICOLAS ISLAND NOLF (NSI)

**Circling not authorized W of Rwy 12-30.

* MISSED APPROACH: Climbing right turn to 3000, intcp the NSI R-360 to FOBDA and hold.

SAN NICOLAS TOWER *
126.85 379.3

IAF
FOBDA
NSI 12 DME
N33° 25.72′
W119° 23.79′

NSI 18

3000

180°

360°

NSI 12 Arc

R-360

VENTURA
108.2 VTU
Chan 19

3000
165°
(50.2)

SANTA CATALINA
111.4 SXC
Chan 51

*CAUTION: CAT E Missed Approach
Minimum Climb Rate to 1300

Knots	60	120	180	240
V/V(fpm)	250	500	750	1000

Controlling Obstacle 1076′

LAVAY
NSI
12

3000
245°
(31.9)

1076

931

991

559

R-068

248°

ZAMER
NSI
5

289°

IAF
CAROM
NSI 21 DME
N33° 16.63′
W119° 02.64′

SAN NICOLAS
Chan 39 NSI
N33° 14.10′ W119° 27.50′

MSA NSI 25 NM
2100

WOKIL
NSI
12

R-109

10 NM

EMERG SAFE ALT 100 NM 10,900

ELEV 506

Rwy 12 tkof
and ldg 9012′

12

10,002 x 194

545

H

739

628

TDZE
506

30

289° to
TACAN

HIRL Rwy 12-30

3000
NSI
R-360

FOBDA
NSI
12

WOKIL
R-109
12

LAVAY
R-068
12

CAROM
R-068
21

ZAMER
5

248°
3000

3000

TACAN ZAPSU
1.5

289°

2600

1800

2.83°
TCH 50

12 Arc

3.5 NM

CATEGORY	A	B	C	D	E
S-30	820-1 314 (400-1)				
CIRCLING **	860-1 354 (400-1)	960-1 454 (500-1)	960-1½ 454 (500-1½)	1060-2 554 (600-2)	

SW-3, 14 JAN 2010 to 11 FEB 2010

09351

AIRPORT DIAGRAM

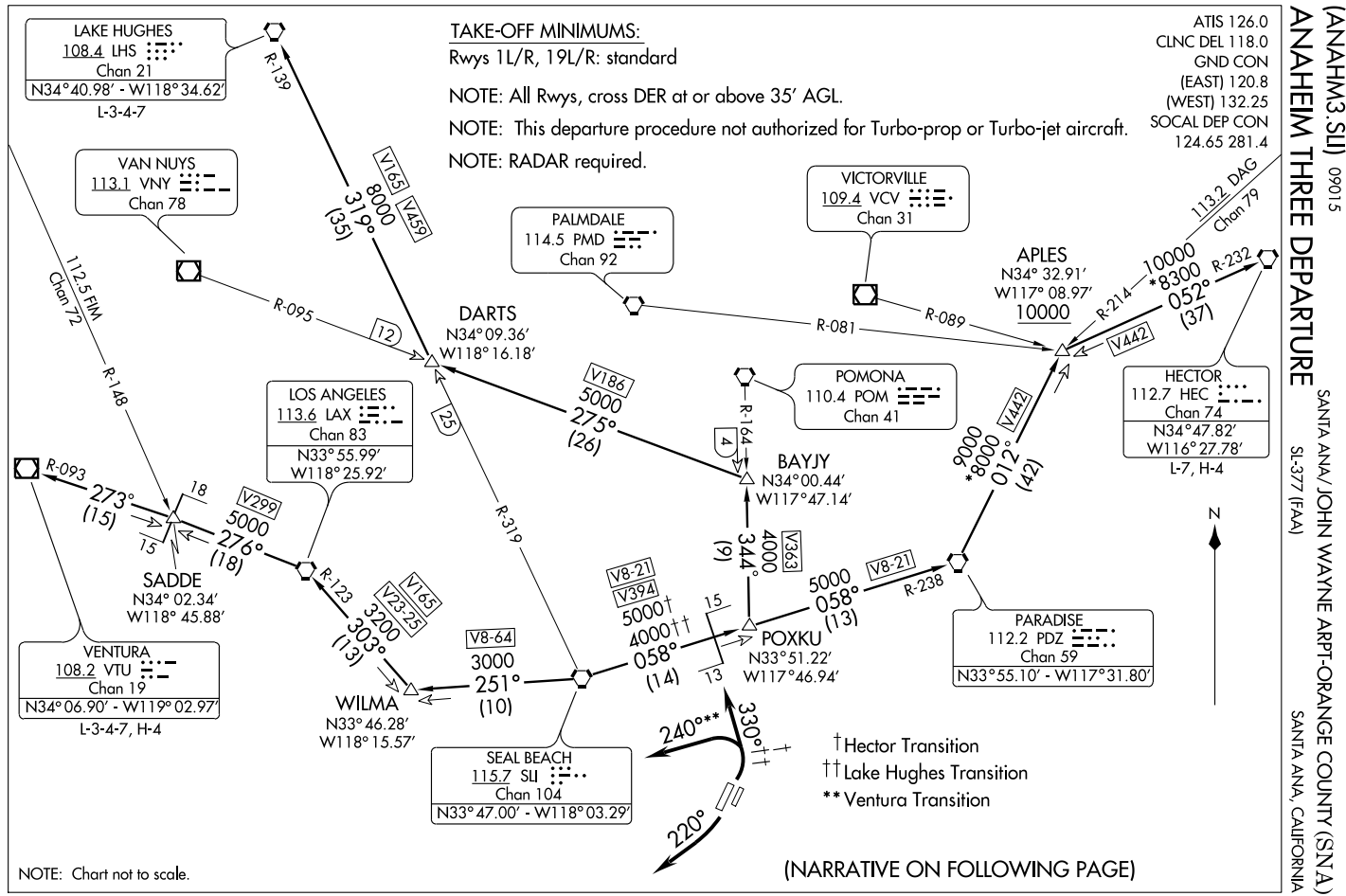
SANTA ANA/JOHN WAYNE ARPT-ORANGE COUNTY (SNA)
AL-377 (FAA)
SANTA ANA, CALIFORNIA

ATIS
126.0
JOHN WAYNE TOWER ★
126.8 379.9
GND CON
120.8 (EAST)
132.25 (WEST)
CLNC DEL
118.0 121.85

VAR 13.1°E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°W

NORTH RON
33°41.0'N
ELEV 42
HOT 1
ELEV 40
19R
19L
194.7°
194.8°
0.3% UP
0.4% UP
2887 X 75
TERMINAL
TOWER RUNUP
FIRE STATION
CONTROL TOWER
HOT 2
014.8°
33°40.5'N
FBO FACILITIES
TEMPORARY SOUTH RON
ELEV 52
HOT 3
MIDFIELD RUNUP
COMPASS ROSE
FBO FACILITIES TRANSIENT PARKING
5701 X 150
265
SOUTHWEST RUNUP
014.7°
EXECUTIVE HANGARS
FIELD ELEV 56
SOUTHEAST RUNUP
RWY 1L-19R
S70, D95, ST121, DT152
RWY 1R-19L
S25, D60
33°40.0'N
FBO FACILITIES TRANSIENT PARKING
ASDE-X Surveillance System in use.
Pilots should operate transponders with Mode C on all twys and rwys.
FUEL FARM
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
ISOLATION AREA
MAINTENANCE
117°52.5'W
117°52.0'W
117°51.5'W

SW-3, 14 JAN 2010 to 11 FEB 2010


ANAHEIM THREE DEPARTURE (ANAHM3.SLI) 09015
SANTA ANA/JOHN WAYNE ARPT-ORANGE COUNTY (SNA)
SL-377 (FAA)
SANTA ANA, CALIFORNIA
ATIS 126.0
CLNC DEL 118.0
GND CON
(EAST) 120.8
(WEST) 132.25
SOCAL DEP CON
124.65 281.4
TAKE-OFF MINIMUMS:
Rwys 1L/R, 19L/R: standard
NOTE: All Rwys, cross DER at or above 35' AGL.
NOTE: This departure procedure not authorized for Turbo-prop or Turbo-jet aircraft.
NOTE: RADAR required.
LAKE HUGHES
108.4 LHS
Chan 21
N34°40.98' - W118°34.62'
L-3-4-7
VAN NUYS
113.1 VNY
Chan 78
PALMDALE
114.5 PMD
Chan 92
VICTORVILLE
109.4 VCV
Chan 31
113.2 DAG
Chan 79
112.5 FIM
Chan 72
LOS ANGELES
113.6 LAX
Chan 83
N33°55.99'
W118°25.92'
POMONA
110.4 POM
Chan 41
HECTOR
112.7 HEC
Chan 74
N34°47.82'
W116°27.78'
L-7, H-4
APLES
N34° 32.91'
W117° 08.97'
10000
DARTS
N34°09.36'
W118°16.18'
BAYJY
N34°00.44'
W117°47.14'
SADDE
N34° 02.34'
W118° 45.88'
VENTURA
108.2 VTU
Chan 19
N34°06.90' - W119°02.97'
L-3-4-7, H-4
WILMA
N33°46.28'
W118°15.57'
SEAL BEACH
115.7 SLI
Chan 104
N33°47.00' - W118°03.29'
POXKU
N33°51.22'
W117°46.94'
PARADISE
112.2 PDZ
Chan 59
N33°55.10' - W117°31.80'
R-139
319°
8000
(35)
V165
V459
R-095
12
R-148
R-093
273°
(15)
18
15
V299
5000
276°
(18)
R-123
V165
V23-25
3200
303°
(13)
R-319
25
V186
5000
275°
(26)
R-164
4
R-081
R-089
R-214
10000
*8300
052°
(37)
R-232
V442
9000
*8000
012°
(42)
R-238
V8-21
5000
058°
(13)
V363
4000
344°
(9)
V394
5000†
4000††
058°
(14)
15
13
V8-64
3000
251°
(10)
240°**
330°††
220°
†Hector Transition
††Lake Hughes Transition
**Ventura Transition
N
NOTE: Chart not to scale.
(NARRATIVE ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 19L/R: Turn right heading 220° for radar vectors to SLI VORTAC. Thence....

TAKE-OFF RUNWAYS 1L/R:

HECTOR or LAKE HUGHES TRANSITION: Turn left heading 330° for radar vectors to SLI VORTAC. Thence....

VENTURA TRANSITION: Turn left heading 240° for radar vectors to LAX VORTAC. Thence....

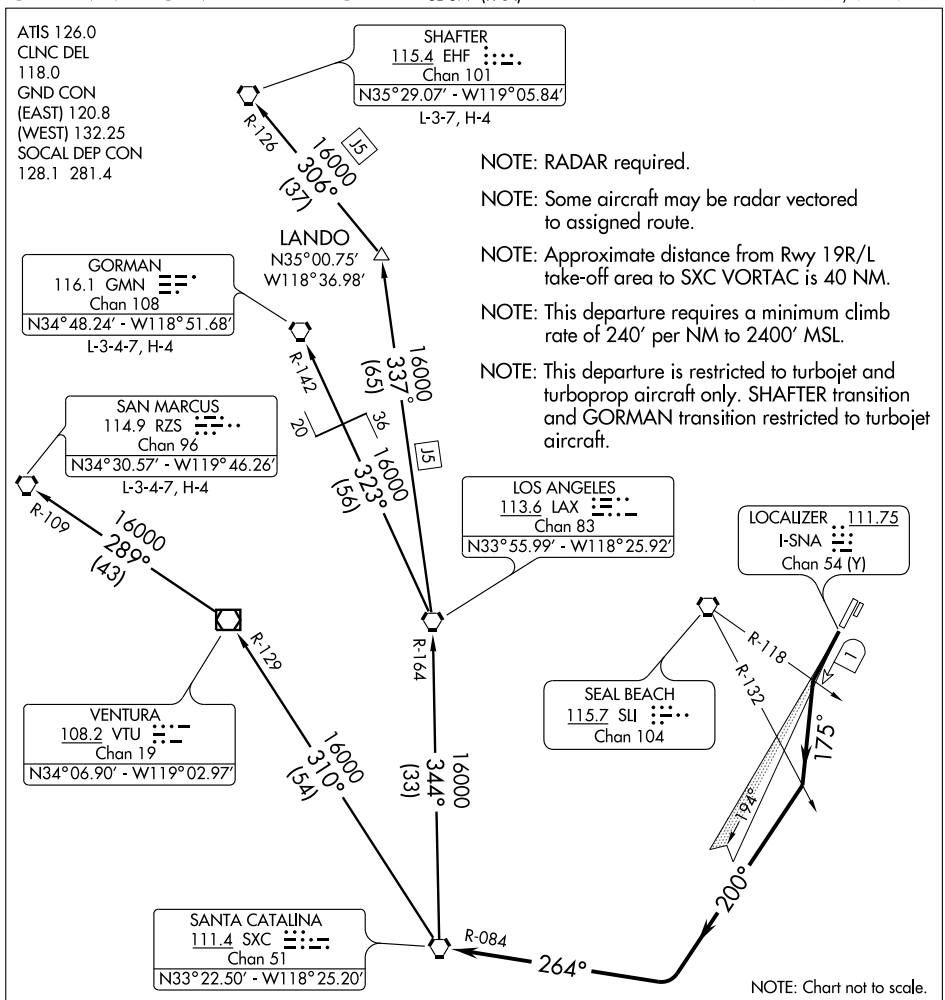
....via (transition) or (assigned route). Maintain 2000 feet. Expect clearance to filed altitude 10 minutes after departure.

HECTOR TRANSITION (ANAHM3.HEC): From over SLI VORTAC via SLI R-058 and PDZ R-238 to PDZ VORTAC, then via PDZ R-012 and HEC R-232 to HEC VORTAC.

LAKE HUGHES TRANSITION (ANAHM3.LHS): From over SLI VORTAC via SLI R-058 and PDZ R-238 to POXKU INT, then via POM R-164 to BAYJY INT, then via VNY R-095 to DARTS INT. Thence via SLI R-319 and LHS R-139 to LHS VORTAC.

VENTURA TRANSITION (ANAHM3.VTU): From over SLI VORTAC via SLI R-251 to WILMA INT, then via LAX R-123 to LAX VORTAC, then via LAX R-276 and VTU R-093 to VTU VOR/DME.

CHANNEL ONE DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 19L/R: Maintain runway heading or I-SNA localizer south course to I-SNA 1 DME fix or SLI R-118, turn left heading 175°, cross SLI R-132 then turn right heading 200°, intercept and proceed via SXC R-084 to SXC VORTAC, thence via (transition) or (assigned route). Expect filed altitude ten minutes after departure.

GORMAN TRANSITION (CHANL1.GMN): From over SXC VORTAC via SXC R-344 and LAX R-164 to LAX VORTAC, then via LAX R-323 and GMN R-142 to GMN VORTAC.

SAN MARCUS TRANSITION (CHANL1.RZS): From over SXC VORTAC via SXC R-310 and VTU R-129 to VTU VOR/DME, then via VTU R-289 and RZS R-109 to RZS VORTAC.

SHAFTER TRANSITION (CHANL1.EHF): From over SXC VORTAC via SXC R-344 and LAX R-164 to LAX VORTAC, then via LAX R-337 to LANDO INT and EHF R-126 to EHF VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010

ATIS 126.0
CLNC DEL
118.0
GND CON
120.8 (EAST)
132.25 (WEST)
SOCAL DEP CON
128.1 281.4

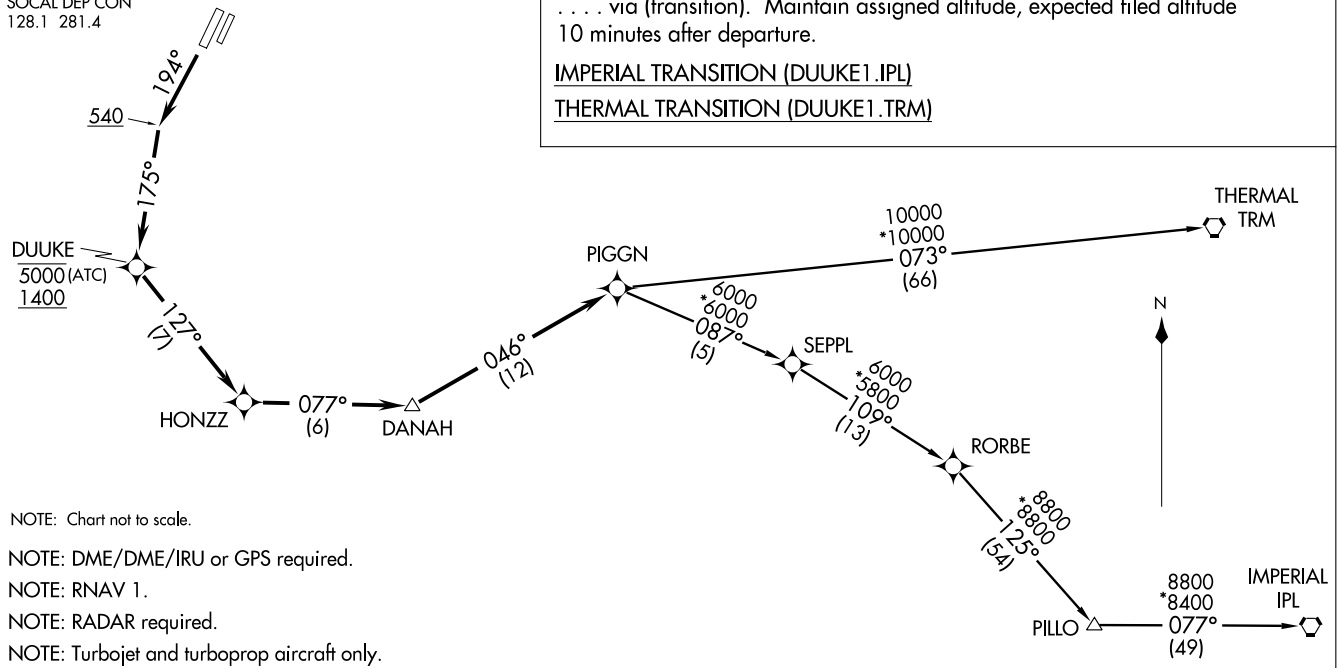
DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 19R: Climb heading 194° to at or above 540, then intercept 175° course to DUUKE, then via depicted route to PIGGN, thence . . . .

. . . . via (transition). Maintain assigned altitude, expected filed altitude 10 minutes after departure.

IMPERIAL TRANSITION (DUUKE1.IPL)

THERMAL TRANSITION (DUUKE1.TRM)



NOTE: Chart not to scale.

NOTE: DME/DME/IRU or GPS required.

NOTE: RNAV 1.

NOTE: RADAR required.

NOTE: Turbojet and turboprop aircraft only.

NOTE: Aircraft may be vectored to DANAH or PIGGN.

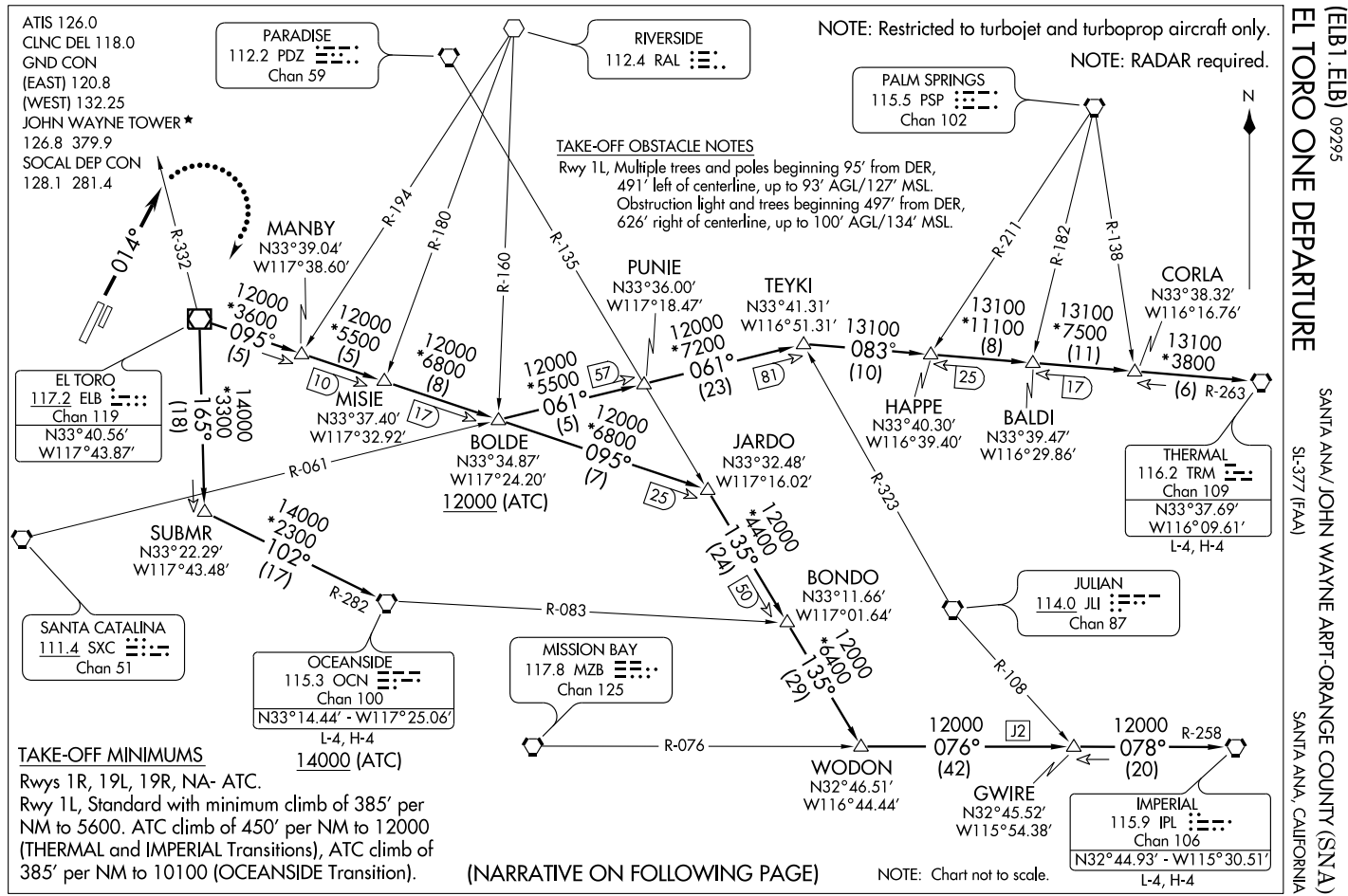
TAKE-OFF MINIMUMS

Rwys 1L/R and 19L: NA - ATC.

Rwy 19R: Standard, ATC climb of 365′ per NM to 540.

TAKE-OFF OBSTACLE NOTES

RWY 19R: Windsock on hangar 536′ from DER, 605′ left of centerline, 44′ AGL/92′ MSL.
Multiple trees beginning 289′ from DER, 500′ right of centerline, up to 52′ AGL/108′ MSL.
Light poles beginning 204′ from DER, 490′ right of centerline, up to 35′ AGL/85′ MSL.
Tree 1574′ from DER, 765′ left of centerline, 59′ feet AGL/113′ MSL.



EL TORO ONE DEPARTURE

(ELB1.ELB) 09295

SANTA ANA/ JOHN WAYNE ARPT-ORANGE COUNTY (SNA)

SANTA ANA, CALIFORNIA

SL-377 (FAA)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 1L: Climb heading 014° for vectors to ELB VOR/DME, then via (transition) or (assigned route). Expect filed altitude ten minutes after departure.

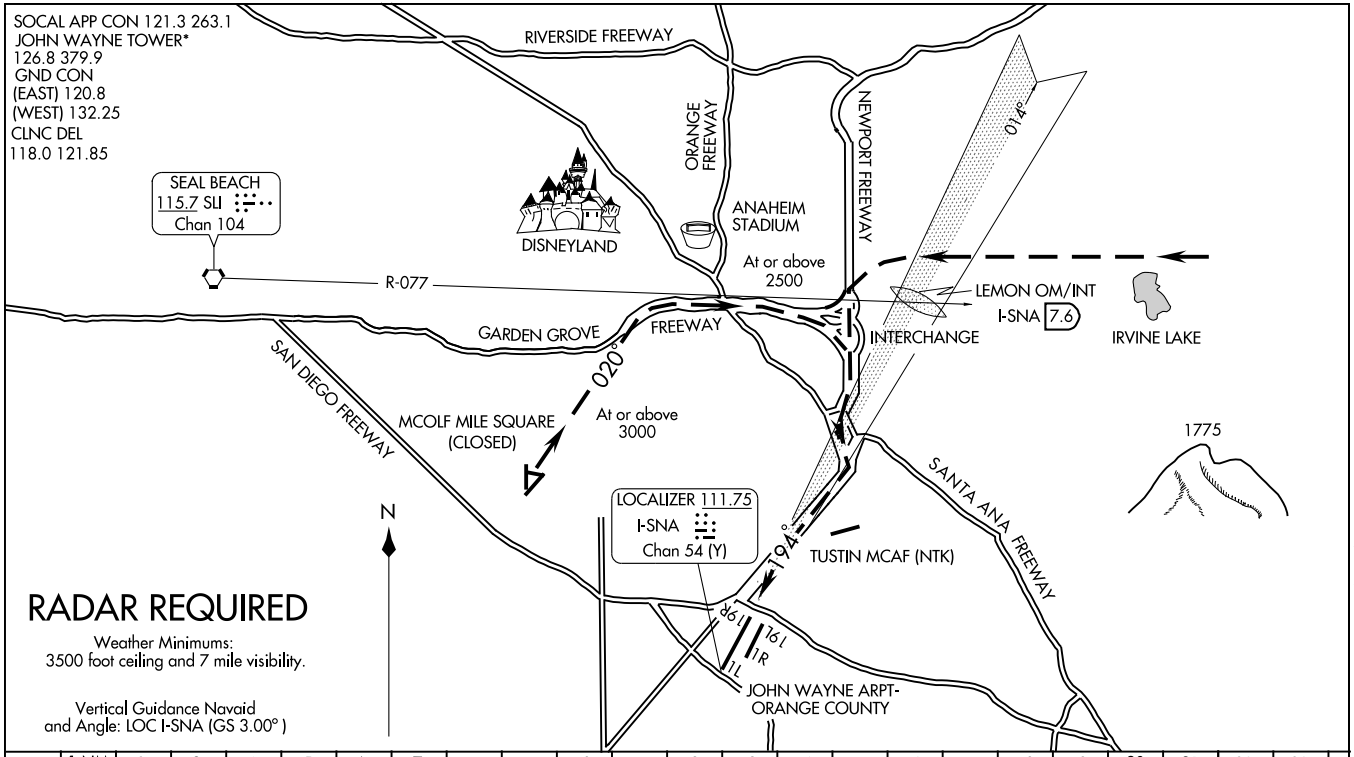
LOST COMMUNICATIONS: If not in contact with departure control by ELB R-332, turn right direct ELB VOR/DME, climb to 7000 and proceed via assigned transition or route. Climb to filed altitude ten minutes after departure.

IMPERIAL TRANSITION (ELB1.IPL): From over ELB VOR/DME via ELB R-095 to JARDO INT, then via PDZ R-135 to WODON INT, then via MZB R-076 and IPL R-258 to GWIRE INT, then via IPL R-258 to IPL VORTAC.

OCEANSIDE TRANSITION (ELB1.OCN): From over ELB VOR/DME via ELB R-165 to SUBMR, then via OCN R-282 to OCN VORTAC.

THERMAL TRANSITION (ELB1.TRM): From over ELB VOR/DME via ELB R-095 to BOLDE INT, then via SXC R-061 to TEYKI INT, then via TRM R-263 to TRM VORTAC.

SW-3. 14 JAN 2010 to 11 FEB 2010



FREEWAY VISUAL RWY 19R

AL-377 (FAA)

SANTA ANA, CALIFORNIA

FREEWAY VISUAL RWY 19R

PROCEDURE NOT AUTHORIZED AT NIGHT

SANTA ANA, CALIFORNIA

AL-377 (FAA)

ILS or LOC RWY 19R

SANTA ANA/JOHN WAYNE AIRPORT-ORANGE COUNTY (SNA)

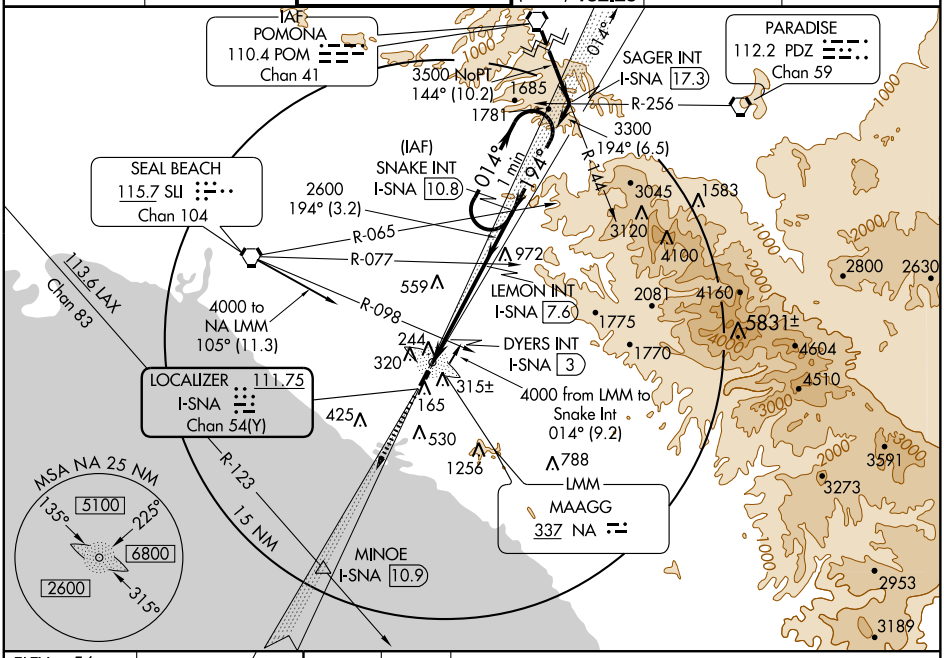
LOC/DME I-SNA	APP CRS	Rwy Idg	5701
111.75	194°	TDZE	55
Chan 54(Y)		Apt Elev	56

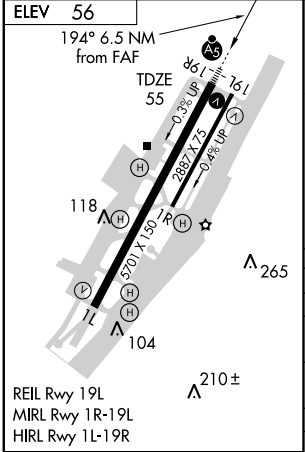
* RVR 1800 authorized with the use of FD or AP or HUD to DA

MALSR

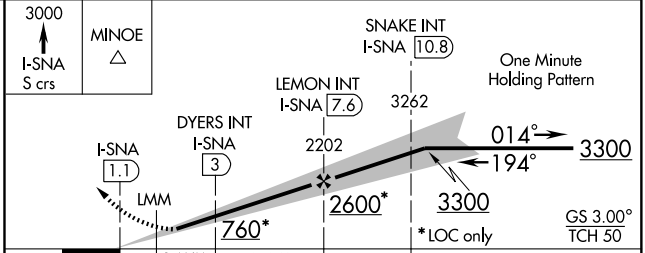
MISSED APPROACH: Climb to 3000 via I-SNA south course to MINOE Int/I-SNA 10.9 DME.

ATIS	SOCAL APP CON	JOHN WAYNE TOWER*	GND CON	CLNC DEL	UNICOM
126.0	121.3 263.1	126.8 (CTAF) 379.9	(EAST) 120.8 (WEST) 132.25	118.0 121.85	122.95



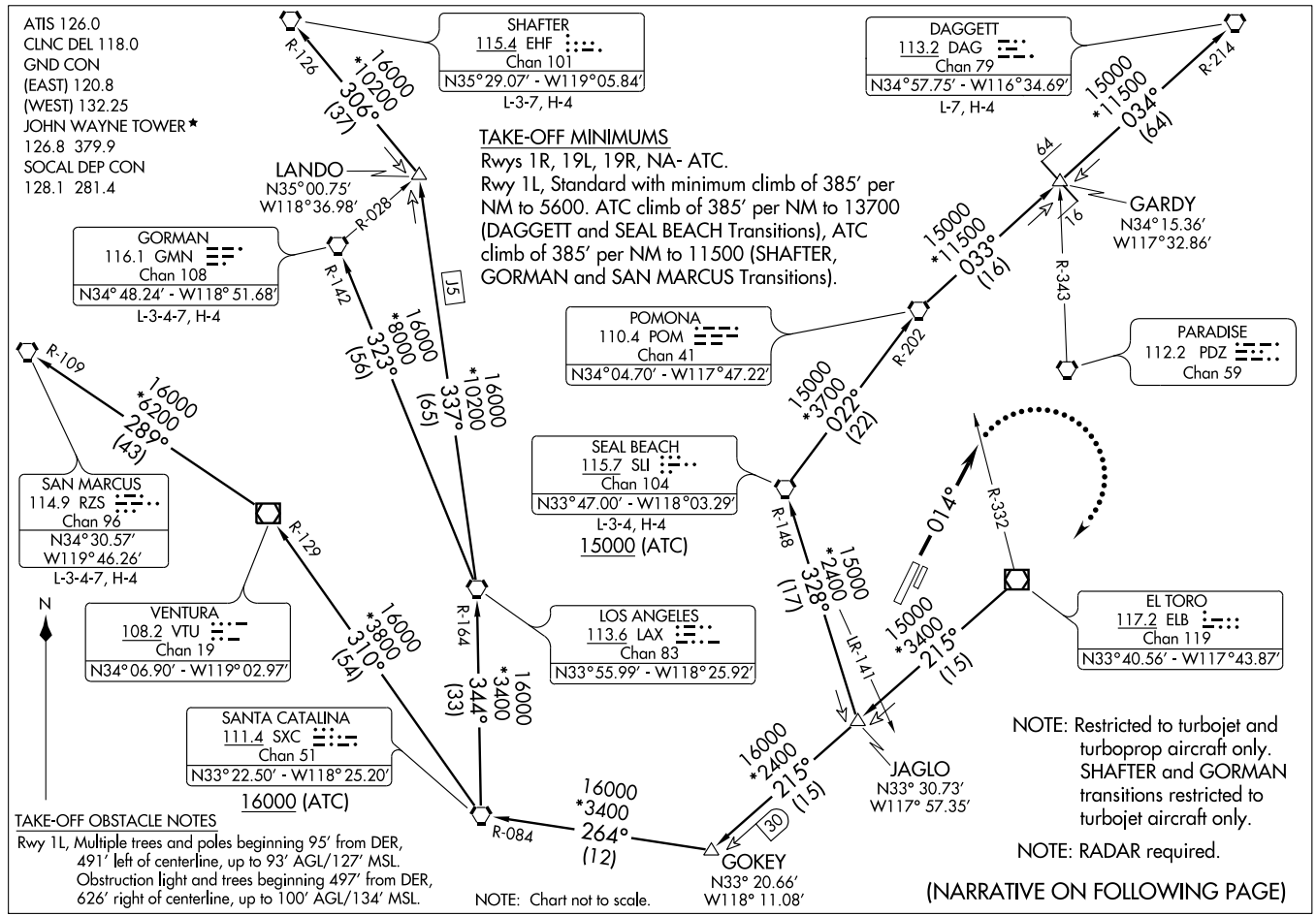


FAF to MAP 6.5 NM					
Knots	60	90	120	150	180
Min:Sec	6:30	4:20	3:15	2:36	2:10



CATEGORY	A	B	C	D
S-ILS 19R	*255/24 200 (200-½)			
S-LOC 19R	760/24 705 (800-½)		760-1½ 705 (800-1½)	760-1¾ 705 (800-1¾)
CIRCLING	760-1 704 (800-1)		760-2 704 (800-2)	760-2¼ 704 (800-2¼)
DYERS FIX MINIMUMS				
S-LOC 19R	440/24 385 (400-½)			440/40 385 (400-¾)
CIRCLING	660-1 604 (700-1)		660-1¾ 604 (700-1¾)	660-2 604 (700-2)

SW-3, 14 JAN 2010 to 11 FEB 2010


ATIS 126.0
CLNC DEL 118.0
GND CON
(EAST) 120.8
(WEST) 132.25
JOHN WAYNE TOWER ★
126.8 379.9
SOCAL DEP CON
128.1 281.4
SHAFTER
115.4 EHF
Chan 101
N35°29.07' - W119°05.84'
L-3-7, H-4
DAGGETT
113.2 DAG
Chan 79
N34°57.75' - W116°34.69'
L-7, H-4
LANDO
N35°00.75'
W118°36.98'
GORMAN
116.1 GMN
Chan 108
N34° 48.24' - W118° 51.68'
L-3-4-7, H-4
GARDY
N34°15.36'
W117°32.86'
PARADISE
112.2 PDZ
Chan 59
POMONA
110.4 POM
Chan 41
N34°04.70' - W117°47.22'
SEAL BEACH
115.7 SLI
Chan 104
N33°47.00' - W118°03.29'
L-3-4, H-4
15000 (ATC)
SAN MARCUS
114.9 RZS
Chan 96
N34°30.57'
W119°46.26'
L-3-4-7, H-4
VENTURA
108.2 VTU
Chan 19
N34°06.90' - W119°02.97'
LOS ANGELES
113.6 LAX
Chan 83
N33°55.99' - W118°25.92'
EL TORO
117.2 ELB
Chan 119
N33°40.56' - W117°43.87'
SANTA CATALINA
111.4 SXC
Chan 51
N33°22.50' - W118°25.20'
16000 (ATC)
JAGLO
N33° 30.73'
W117° 57.35'
GOKEY
N33° 20.66'
W118° 11.08'
TAKE-OFF MINIMUMS
Rwys 1R, 19L, 19R, NA- ATC.
Rwy 1L, Standard with minimum climb of 385' per NM to 5600. ATC climb of 385' per NM to 13700 (DAGGETT and SEAL BEACH Transitions), ATC climb of 385' per NM to 11500 (SHAFTER, GORMAN and SAN MARCUS Transitions).
TAKE-OFF OBSTACLE NOTES
Rwy 1L, Multiple trees and poles beginning 95' from DER, 491' left of centerline, up to 93' AGL/127' MSL. Obstruction light and trees beginning 497' from DER, 626' right of centerline, up to 100' AGL/134' MSL.
NOTE: Chart not to scale.
NOTE: Restricted to turbojet and turboprop aircraft only. SHAFTER and GORMAN transitions restricted to turbojet aircraft only.
NOTE: RADAR required.
(NARRATIVE ON FOLLOWING PAGE)
N
R-126
R-028
R-142
R-109
R-129
R-164
R-084
R-148
R-202
R-214
R-343
R-332
R-141
J5
16000 *10200 306° (37)
16000 *8000 323° (56)
16000 *10200 337° (65)
16000 *6200 289° (43)
16000 *3800 310° (54)
16000 *3400 344° (33)
16000 *3400 264° (12)
16000 *2400 215° (15)
15000 *3700 022° (22)
15000 *2400 328° (17)
15000 *11500 033° (16)
15000 *11500 034° (64)
15000 *3400 215° (15)
014°
64
76
30

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 1L: Climb heading 014° for vectors to ELB R-215, then via (transition) or (assigned route). Expect filed altitude ten minutes after departure.

LOST COMMUNICATIONS: If not in contact with departure control by ELB R-332, turn right direct ELB VOR/DME, climb to 7000 and proceed via assigned transition or route. Climb to filed altitude ten minutes after departure.

DAGGETT TRANSITION (IRV1.DAG): From over ELB VOR/DME via ELB R-215 to JAGLO INT, then via SLI R-148 to SLI VORTAC, then via SLI R-022 and POM R-202 to POM VORTAC, then via POM R-033 to GARDY INT, then via DAG R-214 to DAG VORTAC.

GORMAN TRANSITION (IRV1.GMN): From over ELB VOR/DME via ELB R-215 to GOKEY INT, then via SXC R-084 to SXC VORTAC, then via SXC R-344 and LAX R-164 to LAX VORTAC, then via LAX R-323 and GMN R-142 to GMN VORTAC.

SAN MARCUS TRANSITION (IRV1.RZS): From over ELB VOR/DME via ELB R-215 to GOKEY INT, then via SXC R-084 to SXC VORTAC, then via SXC R-310 and VTU R-129 to VTU VOR/DME, then via VTU R-289 and RZS R-109 to RZS VORTAC.

SEAL BEACH TRANSITION (IRV1.SLI): From over ELB VOR/DME via ELB R-215 to JAGLO INT, then via SLI R-148 to SLI VORTAC.

SHAFTER TRANSITION (IRV1.EHF): From over ELB VOR/DME via ELB R-215 to GOKEY INT, then via SXC R-084 to SXC VORTAC, then via SXC R-344 and LAX R-164 to LAX VORTAC, then via LAX R-337 to LANDO INT, then via EHF R-126 to EHF VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010

KAYOH FOUR ARRIVAL

SOCAL APP CON
133.85 346.35
FULLERTON MUNI ATIS
125.05
LONG BEACH ATIS
127.75
ORANGE COUNTY ATIS
126.0
TORRANCE MUNI ATIS
125.6

HECTOR TRANSITION (HEC.KAYOH4): From over HEC VORTAC via HEC R-211 and PDZ R-030 to DAWNA INT, then via HDF R-353 to HDF VOR then via HDF R-257 and SLI R-075 to KAYOH INT. Thence....

PALM SPRINGS TRANSITION (PSP.KAYOH4): From over PSP VORTAC via PSP R-260 to BANDS INT, then via HDF R-054 to HDF VOR, then via HDF R-257 and SLI R-075 to KAYOH INT. Thence....

....From over KAYOH INT via SLI R-075 to SLI VORTAC.

Expect radar vectors to final approach course.

HECTOR
112.7 HEC
Chan 74
N34°47.82′
W116°27.78′
L-7, H-4

V8-21-283-587
10,500
211°
(46)

31
44

DAWNA
N34°15.90′-W117°06.78′
VERTICAL NAVIGATION PLANNING INFORMATION
Turbojet: Expect clearance to cross at 13,000′.
Non-Turbojet: Expect clearance to cross at 12,000′.

PARADISE
112.2 PDZ
Chan 59

29

R-030

V283-587
10,500
173°
(29)

POMONA
110.4 POM
Chan 41

KAYOH
N33°46.82′
W117°35.41′
VERTICAL NAVIGATION PLANNING INFORMATION
210K

FULLERTON MUNI

LONG BEACH (DAUGHERTY FIELD)

R-164

R-185

R-154

R-353

V283-372

8000
257°
(16)

19

24

(5)

23

6000
255°
(9)

R-075 4000
(14)

ZAMPERINI FIELD

LOS ALAMITOS AAF

JOGIT
N33°46.91′
W117°46.85′

JOHN WAYNE ARPT-ORANGE COUNTY

DEJAY
N33°46.77′
W117°29.86′

VERTICAL NAVIGATION PLANNING INFORMATION
Expect to cross at or above 8000′.

HOMELAND
113.4 HDF
N33°46.58′-W117°11.12′

R-054

V372
8000
234°
(18)

13,000
260°
(21)

V16-370-372

BANDS
N33°53.38′-W116°50.97′
VERTICAL NAVIGATION PLANNING INFORMATION
Expect clearance to cross at 14,000′.

R-021

SEAL BEACH
115.7 SLI
Chan 104
N33°47.00′-W118°03.29′

PALM SPRINGS
115.5 PSP
Chan 102
N33°52.20′-W116°25.79′
L-4, H-4

OCEANSIDE
115.3 OCN
Chan 100

N

NOTE: Chart not to scale.

LOC/DME I-OJW	APP CRS	Rwy Idg	5701
108.3	181°	TDZE	52
Chan 20		Apt Elev	54

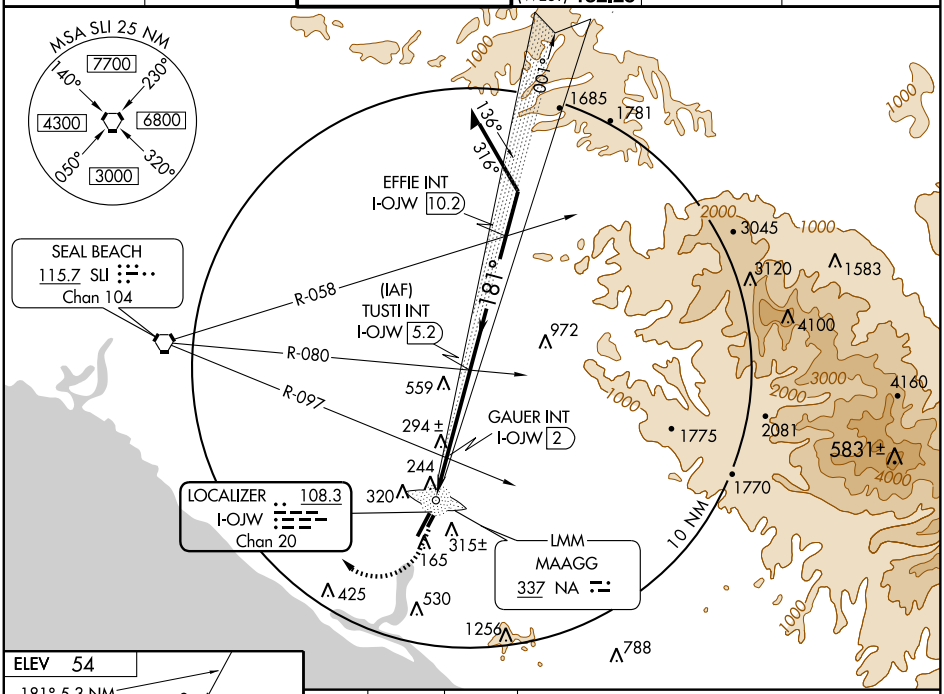
LDA RWY 19R

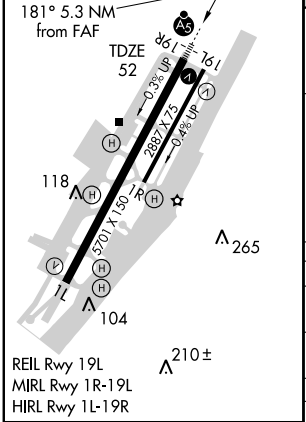
SANTA ANA/JOHN WAYNE AIRPORT-ORANGE COUNTY (SNA)

MALSR

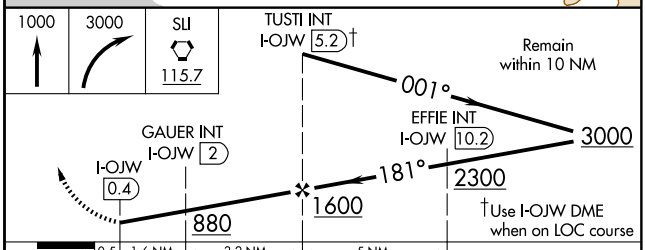
MISSED APPROACH: Climb to 1000 then climbing right turn to 3000 direct SLI VORTAC.

ATIS	SOCAL APP CON	JOHN WAYNE TOWER ★	GND CON	CLNC DEL	UNICOM
126.0	121.3 263.1	126.8 (CTAF) Ⓛ 379.9	(EAST) 120.8 (WEST) 132.25	118.0 121.85	122.95





FAF to MAP 4.8 NM					
Knots	60	90	120	150	180
Min:Sec	4:48	3:12	2:24	1:55	1:36



CATEGORY	A	B	C	D
S-19R	880/24 828 (900-½)	880/40 828 (900-¾)	880-2 828 (900-2)	880-2¼ 828 (900-2¼)
CIRCLING	880-1 826 (900-1)	880-1¼ 826 (900-1¼)	880-2½ 826 (900-2½)	880-2¾ 826 (900-2¾)
GAUER FIX MINIMUMS				
S-19R	480/24 428 (500-½)		480/40 428 (500-¾)	480/50 428 (500-1)
CIRCLING	660-1 606 (700-1)		660-1¾ 606 (700-1¾)	660-2 606 (700-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

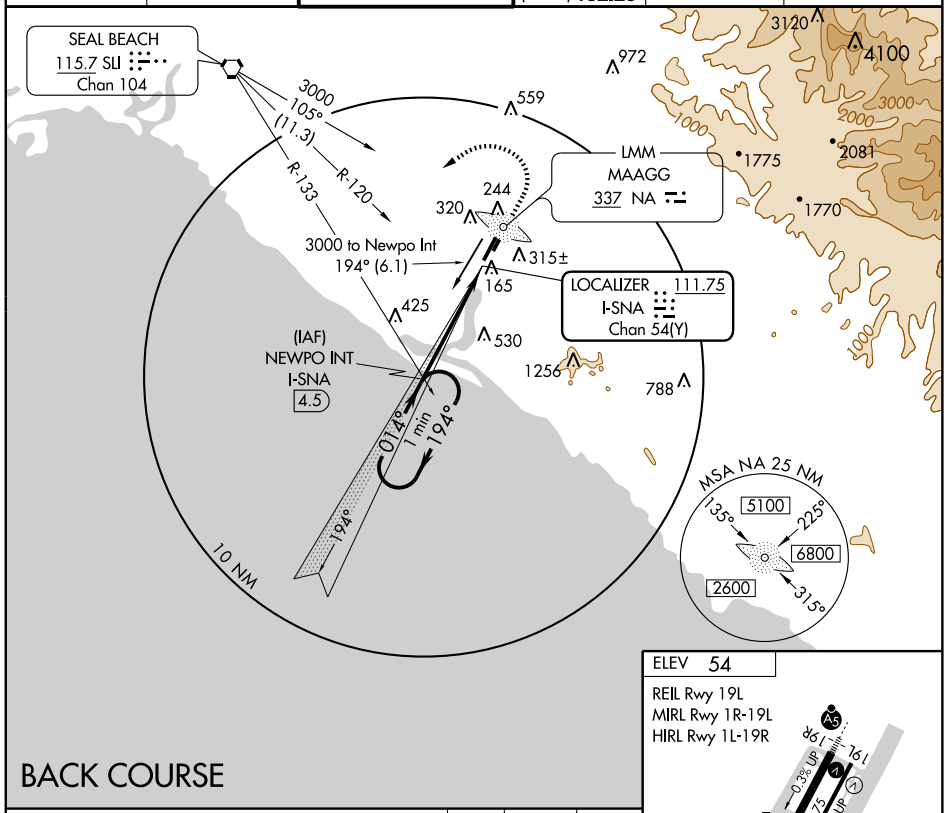
LOC/DME I-SNA	APP CRS	Rwy Idg	5701
111.75	014°	TDZE	54
Chan 54 (Y)		Apt Elev	54

LOC BC RWY 1L

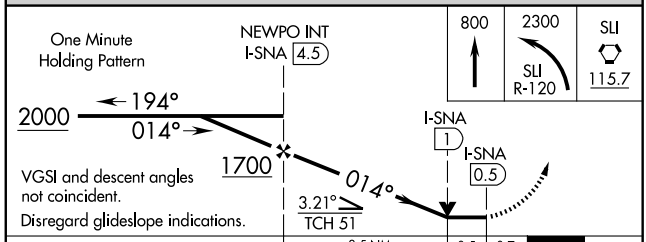
SANTA ANA/JOHN WAYNE AIRPORT-ORANGE COUNTY (SNA)

MISSED APPROACH: Climb to 800, then climbing left turn to 2300 via SLI R-120 to SLI VORTAC.

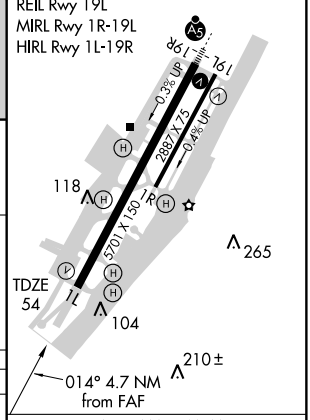
ATIS	SOCAL APP CON	JOHN WAYNE TOWER★	GND CON	CLNC DEL	UNICOM
126.0	121.3 263.1	126.8 (CTAF) Ⓛ 379.9	(EAST) 120.8 (WEST) 132.25	118.0 121.85	122.95



BACK COURSE



CATEGORY	A	B	C	D
S-1L	480-1	426 (500-1)	480-1¼	426 (500-1¼)
CIRCLING	660-1	606 (700-1)	660-1¾ 606 (700-1¾)	660-2 606 (700-2)

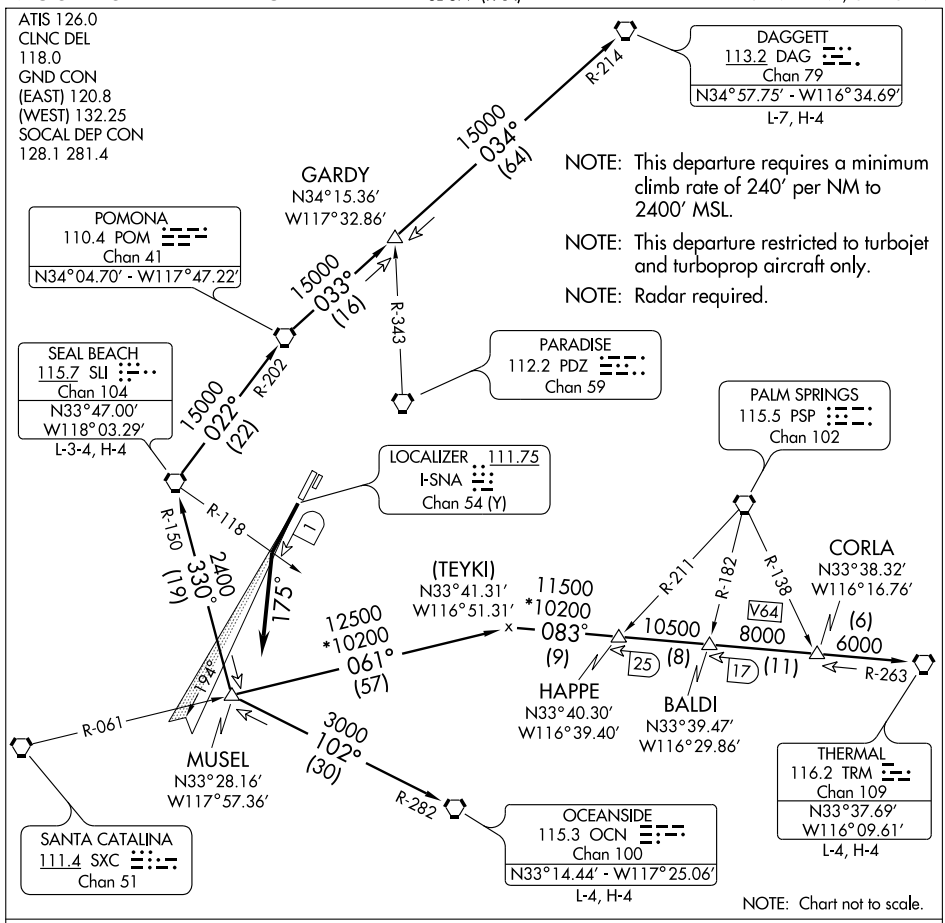


FAF to MAP 4 NM

Knots	60	90	120	150	180
Min:Sec	4:00	2:40	2:00	1:36	1:20

SW-3, 14 JAN 2010 to 11 FEB 2010

MUSEL SIX DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 19L/R: Maintain runway heading or I-SNA localizer south course to I-SNA 1 DME fix or SLI R-118, turn left heading 175° for radar vectors to MUSEL INT, then via (transition) or (assigned route). Expect filed altitude ten minutes after departure.

DAGGETT TRANSITION (MUSEL6.DAG): From over MUSEL INT via SLI R-150 to SLI VORTAC, then via SLI R-022 and POM R-202 to POM VORTAC, then via POM R-033 and DAG R-214 to DAG VORTAC.

OCEANSIDE TRANSITION (MUSEL6.OCN): From over MUSEL INT via OCN R-282 to OCN VORTAC.

SEAL BEACH TRANSITION (MUSEL6.SLI): From over MUSEL INT via SLI R-150 to SLI VORTAC.

THERMAL TRANSITION (MUSEL6.TRM): From over MUSEL INT via SXC R-061 and TRM R-263 to TRM VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010

LMM NA	APP CRS	Rwy Idg	5701
337	181°	TDZE	52
		Apt Elev	54

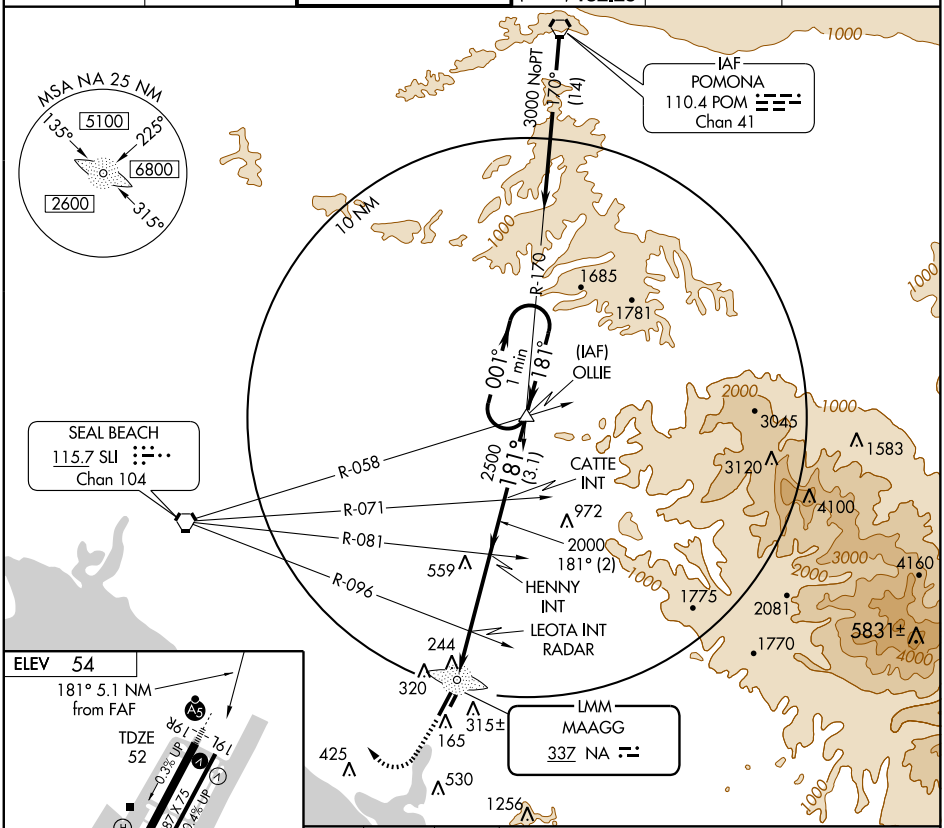
NDB RWY 19R

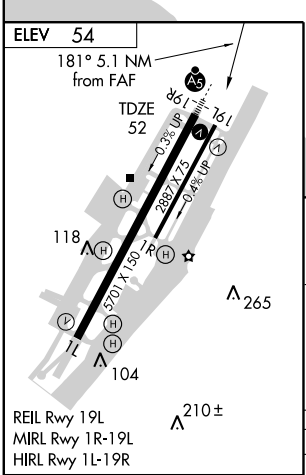
SANTA ANA/ JOHN WAYNE AIRPORT-ORANGE COUNTY (SNA)

MALSR

MISSED APPROACH: Climb to 1000 via heading 190°, then climbing right turn to 3000 direct SLI VORTAC.

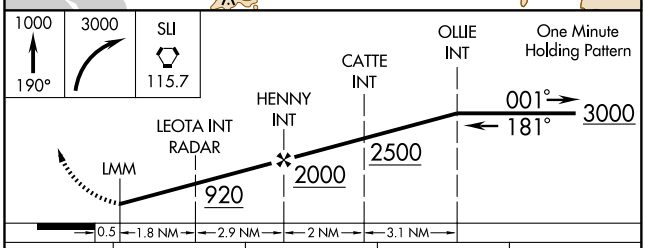
ATIS	SOCAL APP CON	JOHN WAYNE TOWER★	GND CON	CLNC DEL	UNICOM
126.0	121.3 263.1	126.8 (CTAF) L 379.9	(EAST) 120.8 (WEST) 132.25	118.0 121.85	122.95





REIL Rwy 19L
MIRL Rwy 1R-19L
HIRL Rwy 1L-19R

Knots	60	90	120	150	180
Min:Sec					



CATEGORY	A	B	C	D
S-19R	640/40	588 (600-¾)	640/50 588 (600-1)	640-1½ 588 (600-1½)
CIRCLING	640-1	586 (600-1)	640-1½ 586 (600-1½)	640-2 586 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	5701
014°	TDZE	54
	Apt Elev	54

RNAV (GPS) RWY 1L

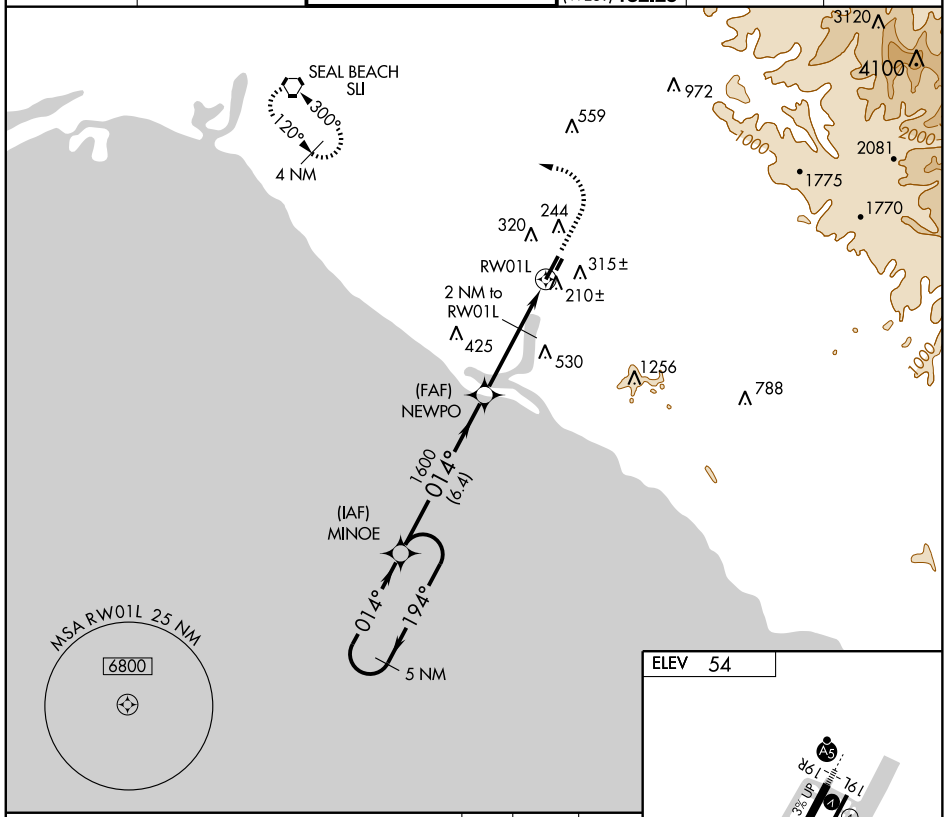
SANTA ANA/JOHN WAYNE AIRPORT-ORANGE COUNTY (SNA)

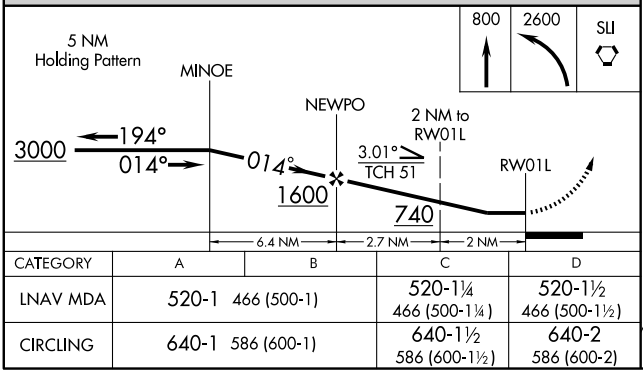
T
ANA

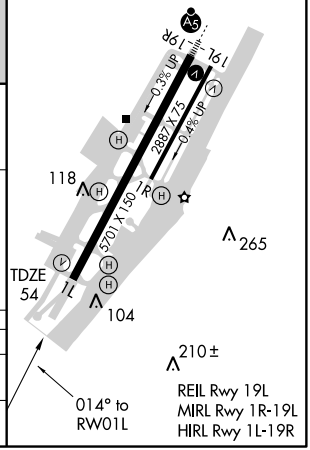
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 800 then climbing left turn to 2600 direct SLI VORTAC and hold.

ATIS	SOCAL APP CON	JOHN WAYNE TOWER ★	GND CON	CLNC DEL	UNICOM
126.0	121.3 263.1	126.8 (CTAF) Ⓛ 379.9	(EAST) 120.8 (WEST) 132.25	118.0 121.85	122.95







CATEGORY	A	B	C	D
LNAV MDA	520-1 466 (500-1)		520-1¼ 466 (500-1¼)	520-1½ 466 (500-1½)
CIRCLING	640-1 586 (600-1)		640-1½ 586 (600-1½)	640-2 586 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	5701
CH 99502	194°	TDZE	55
W19A		Apt Elev	56

RNAV (GPS) RWY 19R

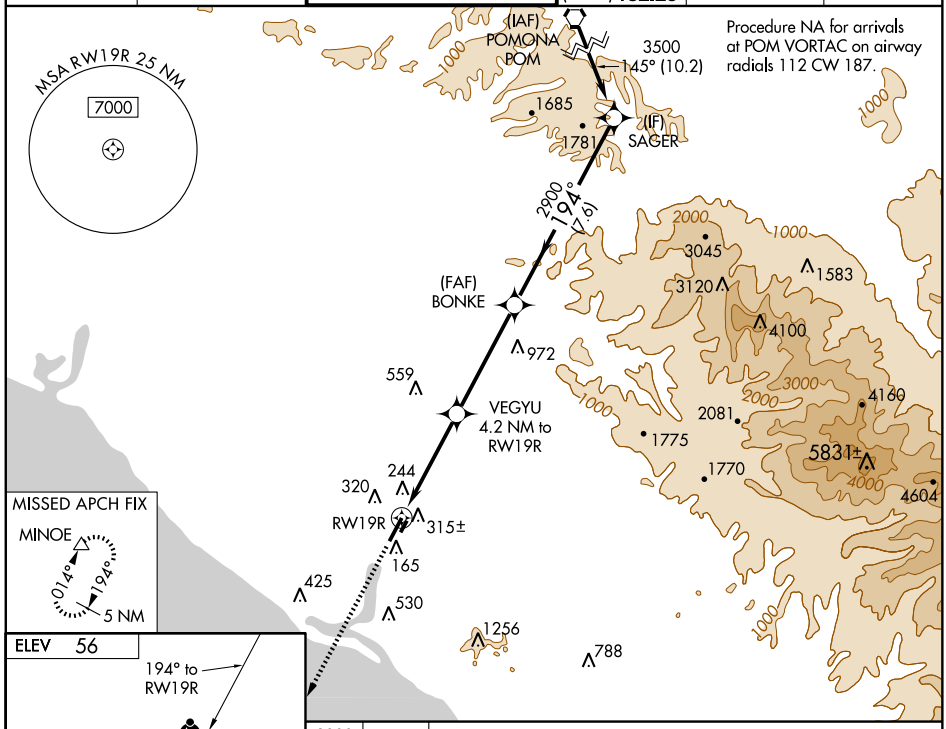
SANTA ANA/JOHN WAYNE AIRPORT-ORANGE COUNTY (SNA)

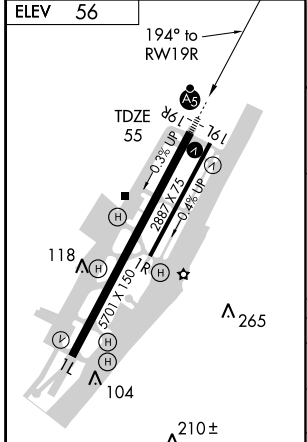
For inoperative MALSR, increase LPV all Cats visibility to RVR 5000. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (121°F). DME/DME RNP- 0.3 NA.

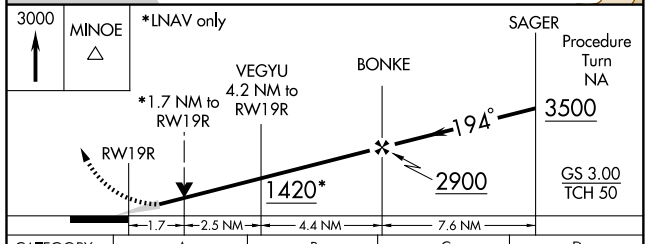
MALSR

MISSED APPROACH: Climb to 3000 direct MINOE and hold.

ATIS	SOCAL APP CON	JOHN WAYNE TOWER ★	GND CON	CLNC DEL	UNICOM
126.0	121.3 263.1	126.8 (CTAF) (L) 379.9	(EAST) 120.8 (WEST) 132.25	118.0 121.85	122.95



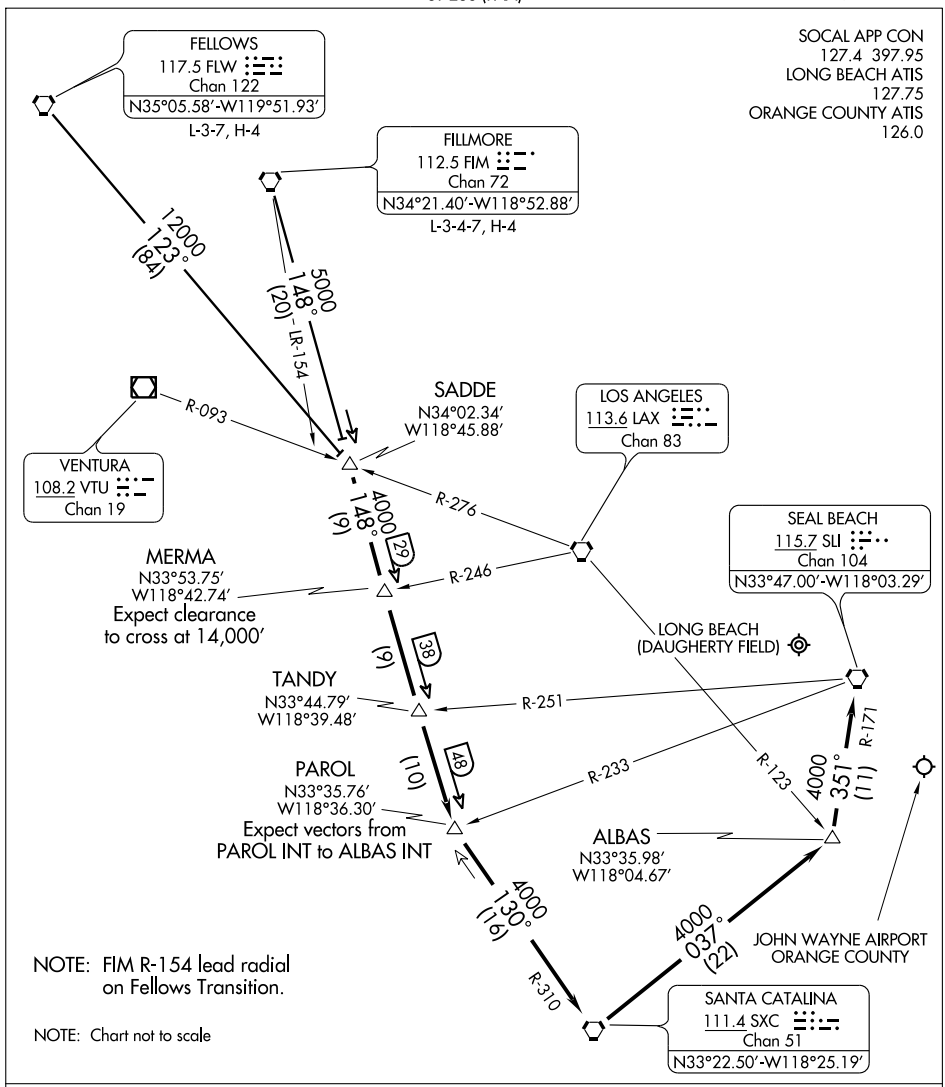




CATEGORY	A	B	C	D
LPV DA	338/24 283 (300-½)			
LNAV/VNAV DA	683/1¾ 628 (700-1¾)			
LNAV MDA	620/24 565 (600-½)		620/50 565 (600-1)	620/60 565 (600-1¼)
CIRCLING	640-1 584 (600-1)		640-1½ 584 (600-1½)	640-2 584 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

TANDY THREE ARRIVAL

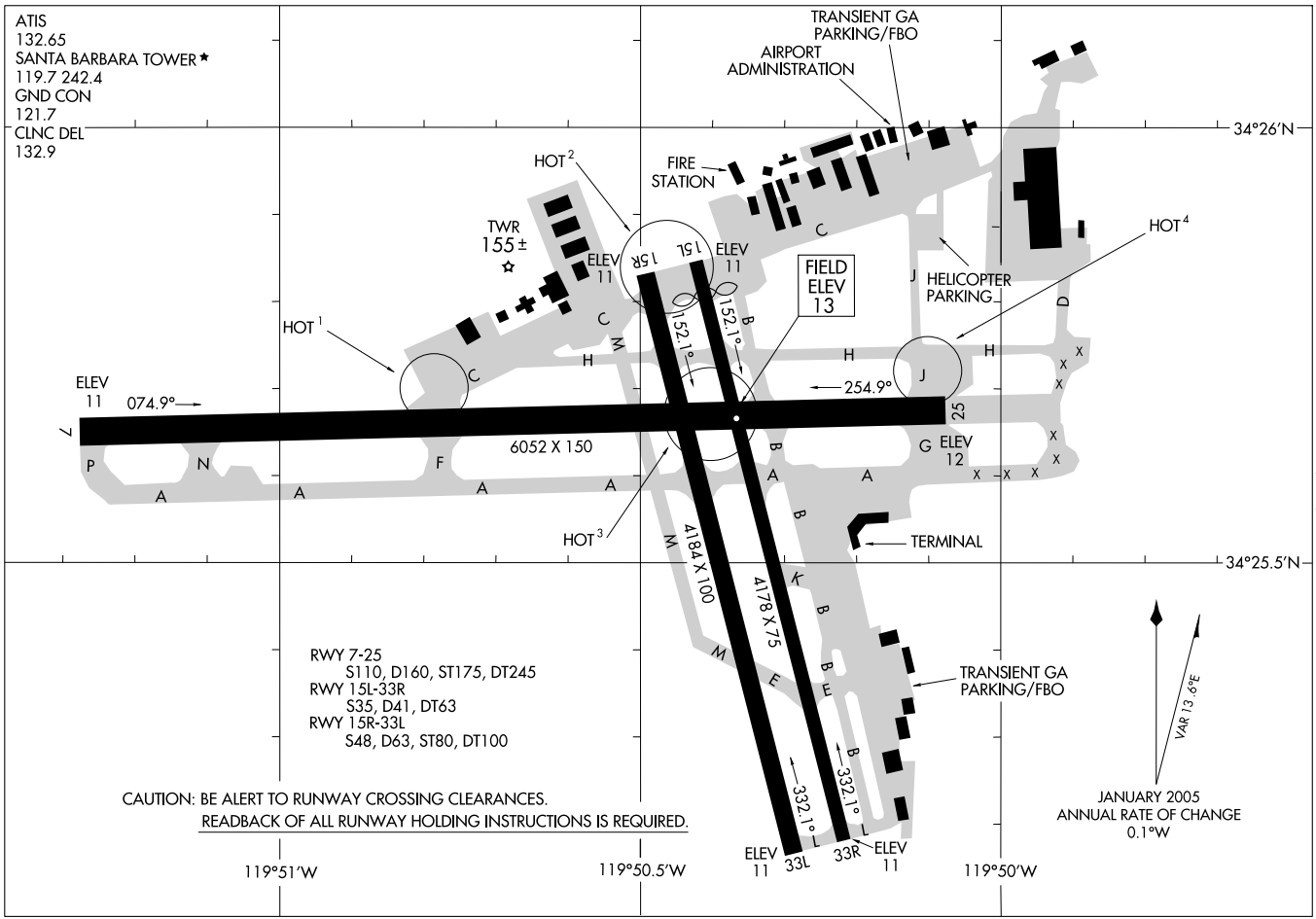


FELLOWS TRANSITION (FLW.TANDY3): From over FLW VORTAC via FLW R-123 to SADDE INT. Thence....

FILLMORE TRANSITION (FIM.TANDY3): From over FIM VORTAC via FIM R-148 to SADDE INT. Thence....

....From over SADDE INT via FIM R-148 to PAROL INT. From over PAROL INT via SXC R-310 to SXC VORTAC. Then from over SXC VORTAC via SXC R-037 and SLI R-171 to SLI VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010



AIRPORT DIAGRAM

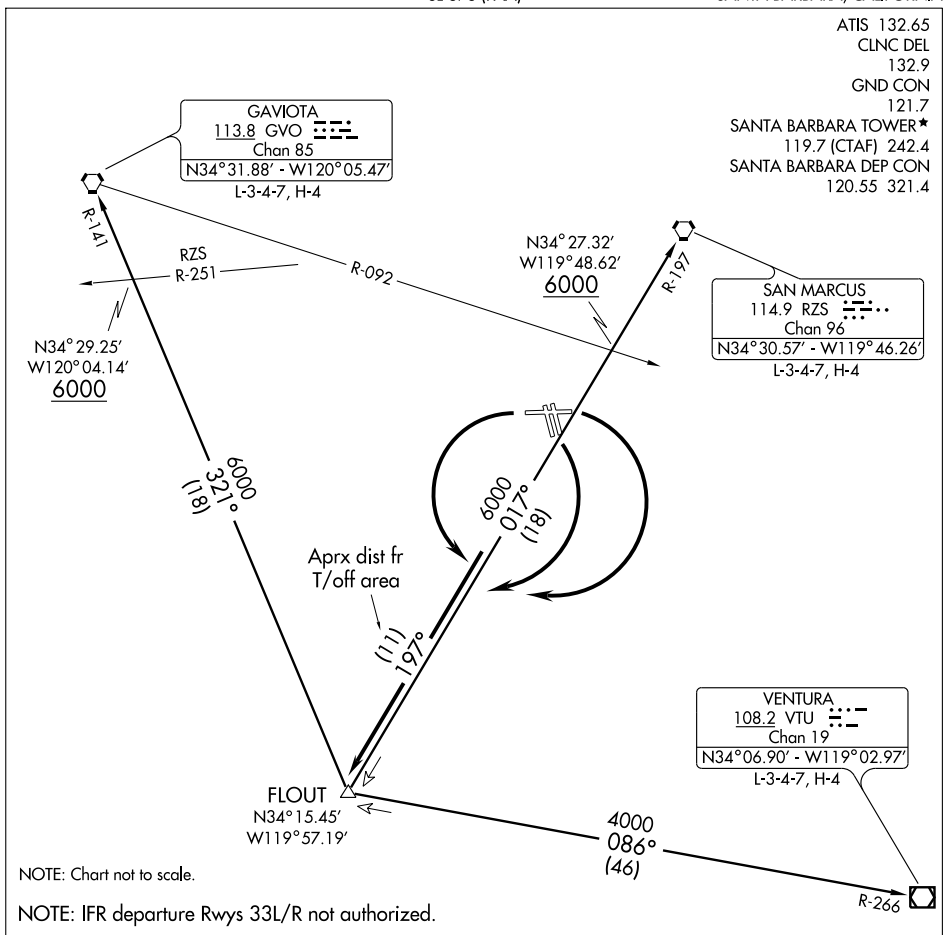
AL-378 (FAA)

SANTA BARBARA MUNI (SBA)
SANTA BARBARA, CALIFORNIA

FLOUT FIVE DEPARTURE

SL-378 (FAA)

SANTA BARBARA MUNI (SBA)
SANTA BARBARA, CALIFORNIA



NOTE: Chart not to scale.

NOTE: IFR departure Rwys 33L/R not authorized.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 7 and 15L/R: Turn right, thence. . . .

TAKE-OFF RUNWAY 25: Turn left, thence. . . .

. . . .intercept and proceed via RZS R-197 to FLOUT INT. Thence via (transition or assigned route.)

GAVIOTA TRANSITION (FLOUT5.GVO): From over FLOUT INT via GVO R-141 to GVO VORTAC. Cross RZS R-251 at or above 6000'.

SAN MARCUS TRANSITION (FLOUT5.RZS): From over FLOUT INT via RZS R-197 to RZS VORTAC. Cross GVO R-092 at or above 6000'.

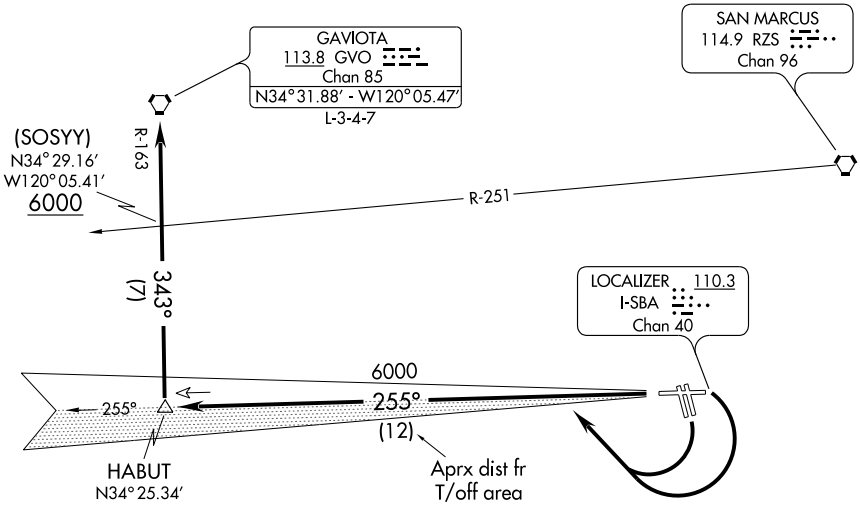
VENTURA TRANSITION (FLOUT5.VTU): From over FLOUT INT via VTU R-266 to VTU VOR/DME.

SW-3, 14 JAN 2010 to 11 FEB 2010

HABUT FOUR DEPARTURE

SL-378 (FAA)

ATIS 132.65
CLNC DEL
132.9
GND CON
121.7
SANTA BARBARA TOWER★
119.7 (CTAF) 242.4
SANTA BARBARA DEP CON
120.55 321.4



NOTE: IFR departure Rwys 33L/R not authorized.

NOTE: Minimum (ATC) climb of 385' per NM to 6000.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 7 and 15L/R: Turn right, intercept I-SBA west course to HABUT INT, thence via GVO R-163 to GVO VORTAC. Cross RZS R-251 at or above 6000'.

TAKE-OFF RUNWAY 25: Intercept I-SBA west course to HABUT INT, thence via GVO R-163 to GVO VORTAC. Cross RZS R-251 at or above 6000'.

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-SBA	APP CRS	Rwy Idg 6052
110.3	075°	TDZE 13
Chan 40		Apt Elev 13

ILS or LOC RWY 7

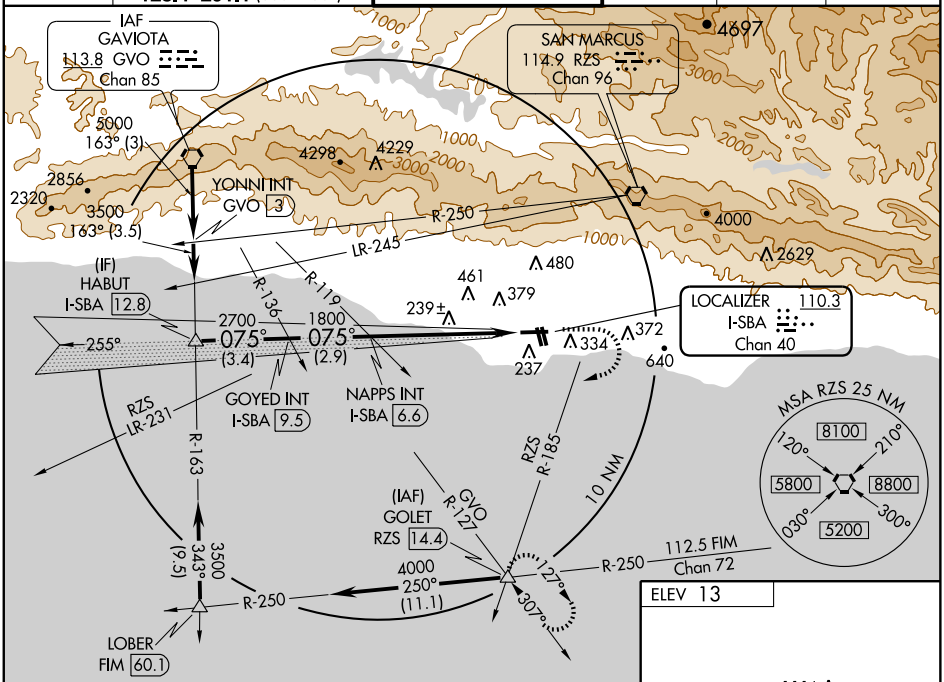
SANTA BARBARA MUNI (SBA)

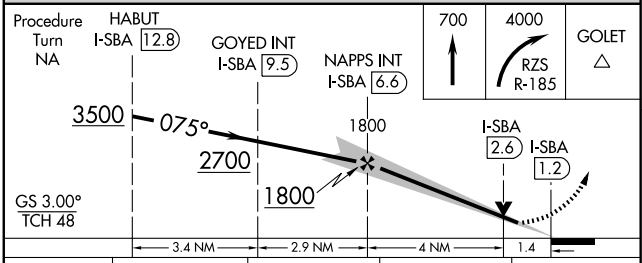
When local altimeter setting not received, use Oxnard altimeter setting and increase all DAs/MDAs 100 feet, and S-LOC Cat. C visibility to RVR 5000, Cat. D visibility to RVR 6000. Increase Circling Cat. A visibility ¼ mile, Cat. C visibility ½ mile.
For inoperative MALSR when using Oxnard altimeter setting, increase S-ILS 7 all Cats. visibility to RVR 5000.
*RVR 1800 authorized with the use of FD or AP or HUD to DA.

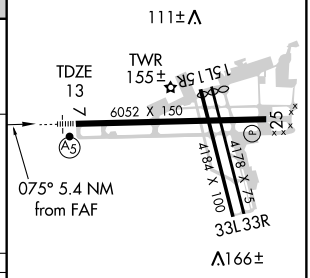
MALSR

MISSED APPROACH: Climb to 700 then climbing right turn to 4000 via RZS VORTAC R-185 to GOLET INT/RZS 14.4 DME and hold, continue climb-in-hold to 4000.

ATIS	SANTA BARBARA APP CON	SANTA BARBARA TOWER*	GND CON	CLNC DEL	UNICOM
132.65	120.55 321.4 (151°-329°) 125.4 291.1 (330°-150°)	119.7 (CTAF) L 242.4	121.7	132.9	122.95







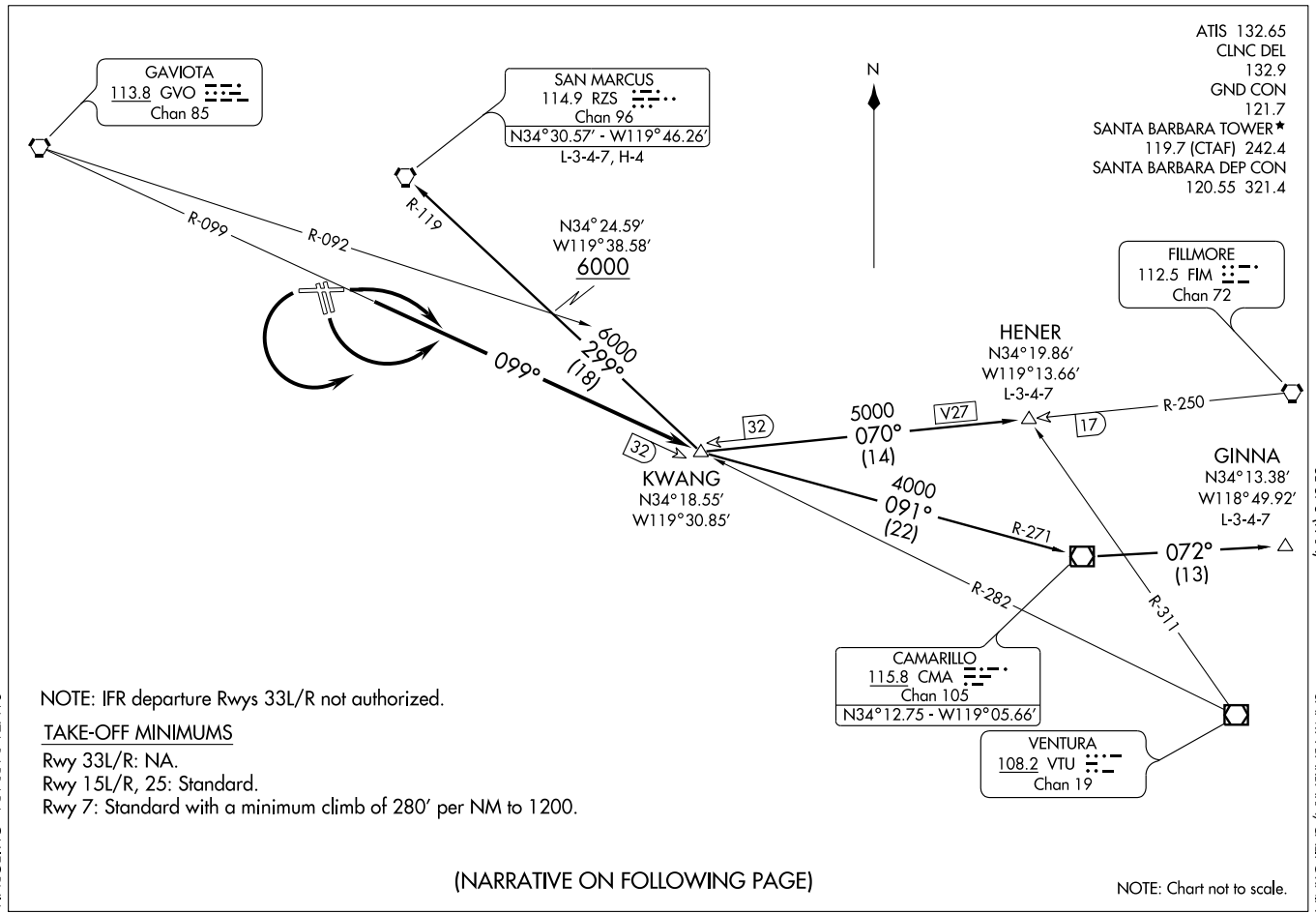
CATEGORY	A	B	C	D
S-ILS 7	*213/24 200 (200-½)			
S-LOC 7	500/24 487 (500-½)		500/40 487 (500-¾)	500/50 487 (500-1)
CIRCLING	800-1 787 (800-1)	800-1¼ 787 (800-1¼)	800-2¼ 787 (800-2¼)	1000-3 987 (1000-3)

HIRL Rwy 7-25
MIRL Rwy 15R-33L L
REIL Rwy 15R L
REIL Rwy 25

FAF to MAP 5.4 NM

Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

SW-3, 14 JAN 2010 to 11 FEB 2010



NOTE: IFR departure Rwys 33L/R not authorized.

TAKE-OFF MINIMUMS

Rwy 33L/R: NA.
Rwy 15L/R, 25: Standard.
Rwy 7: Standard with a minimum climb of 280′ per NM to 1200.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

(KWANG5.KWANG) 09295

KWANG FIVE DEPARTURE

SL-378 (FAA)

SANTA BARBARA MUNI (SBA)

SANTA BARBARA, CALIFORNIA

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 7: Climbing right turn to intercept GVO VORTAC R-099 to KWANG INT thence. . . .

TAKE-OFF RUNWAYS 15L/R and 25: Climbing left turn to intercept GVO VORTAC R-099 to KWANG INT thence. . . .

. . . .via (transition) or (assigned route).

HENER TRANSITION (KWANG5.HENER): From over KWANG INT via FIM R-250 to HENER INT.

SAN MARCUS TRANSITION (KWANG5.RZS): From over KWANG INT via RZS R-119 to RZS VORTAC. Cross GVO R-092 at or above 6000'.

GINNA TRANSITION (KWANG5.GINNA): From over KWANG INT via CMA R-271 to CMA VOR/DME then via CMA R-072 to GINNA.

TAKE-OFF OBSTACLE NOTES

Rwy 7: OL on DME antenna, road, and numerous trees beginning 350' from DER, 101' right of centerline, up to 55' AGL/74' MSL. Antennas, poles, tower, and numerous trees beginning 194' from DER, 11' left of centerline, up to 79' AGL 98' MSL.
Rwy 15L: Numerous trees beginning 1242' from DER, 119' right of centerline, up to 100' AGL/159' MSL.
Rwy 15R: Sign and numerous trees beginning 29' from DER, 94' right of centerline, up to 100' AGL/159' MSL. Tree 1325' from DER, 243' left of centerline, 19' AGL/59' MSL.
Rwy 25: Trees beginning 1999' from DER, 793' right of centerline, up to 67' AGL/86' MSL.

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS		
CH 78306	074°	Rwy Idg	6052
W07A		TDZE	13
		Apt Elev	14

RNAV (GPS) RWY 7

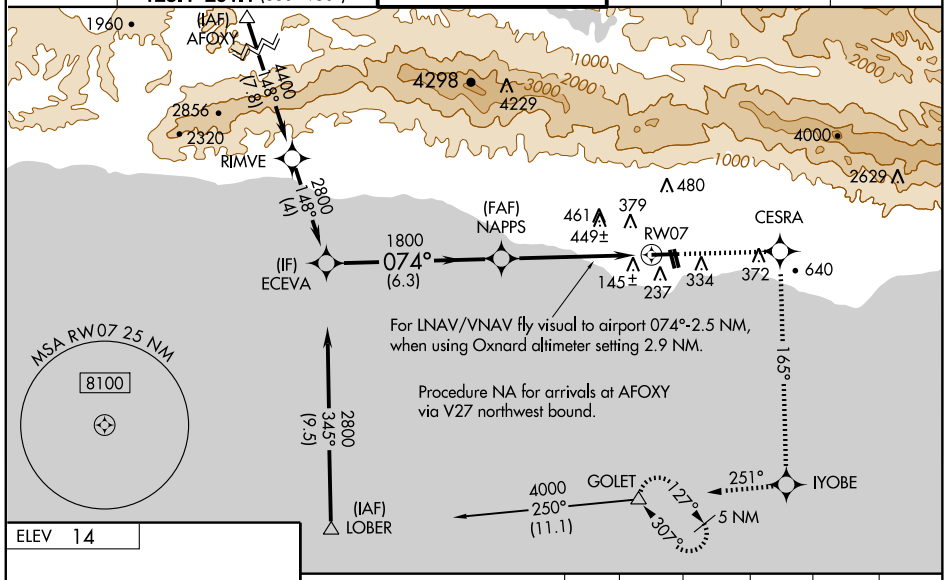
SANTA BARBARA MUNI (SBA)

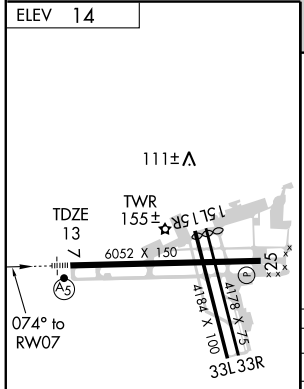
DME/DME RNP -0.3 NA. Inoperative table does not apply to LNAV/VNAV. For inoperative MALSR when using Oxnard altimeter setting, increase LPV all Cats. visibility to 1½ , and LNAV Cat. C to 1¾ , Cat. D to 2. For inoperative MALSR, increase LPV all Cats. visibility to RVR 6000. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). Baro-VNAV NA when using Oxnard altimeter setting. When local altimeter setting not received, use Oxnard altimeter setting and increase all DAs/MDAs 100 feet, and increase, LNAV/VNAV visibility Cat. C and D ¼ mile, LNAV Cat. C to RVR 6000, Cat. D ¼ mile, Circling Cat. A visibility ¼ mile, Cat. C visibility ½ mile. VDP NA when using Oxnard altimeter setting.

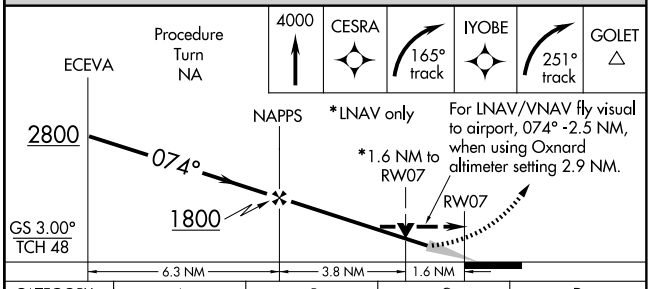
MALSR

MISSED APPROACH: Climb to 4000 direct CESRA and right turn via 165° track to IYOBE and right turn via 251° track to GOLET and hold, continue climb-in-hold to 4000.

ATIS	SANTA BARBARA APP CON	SANTA BARBARA TOWER*	GND CON	CLNC DEL	UNICOM
132.65	120.55 321.4 (151°-329°) 125.4 291.1 (330°-150°)	119.7 (CTAF) L 242.4	121.7	132.9	122.95



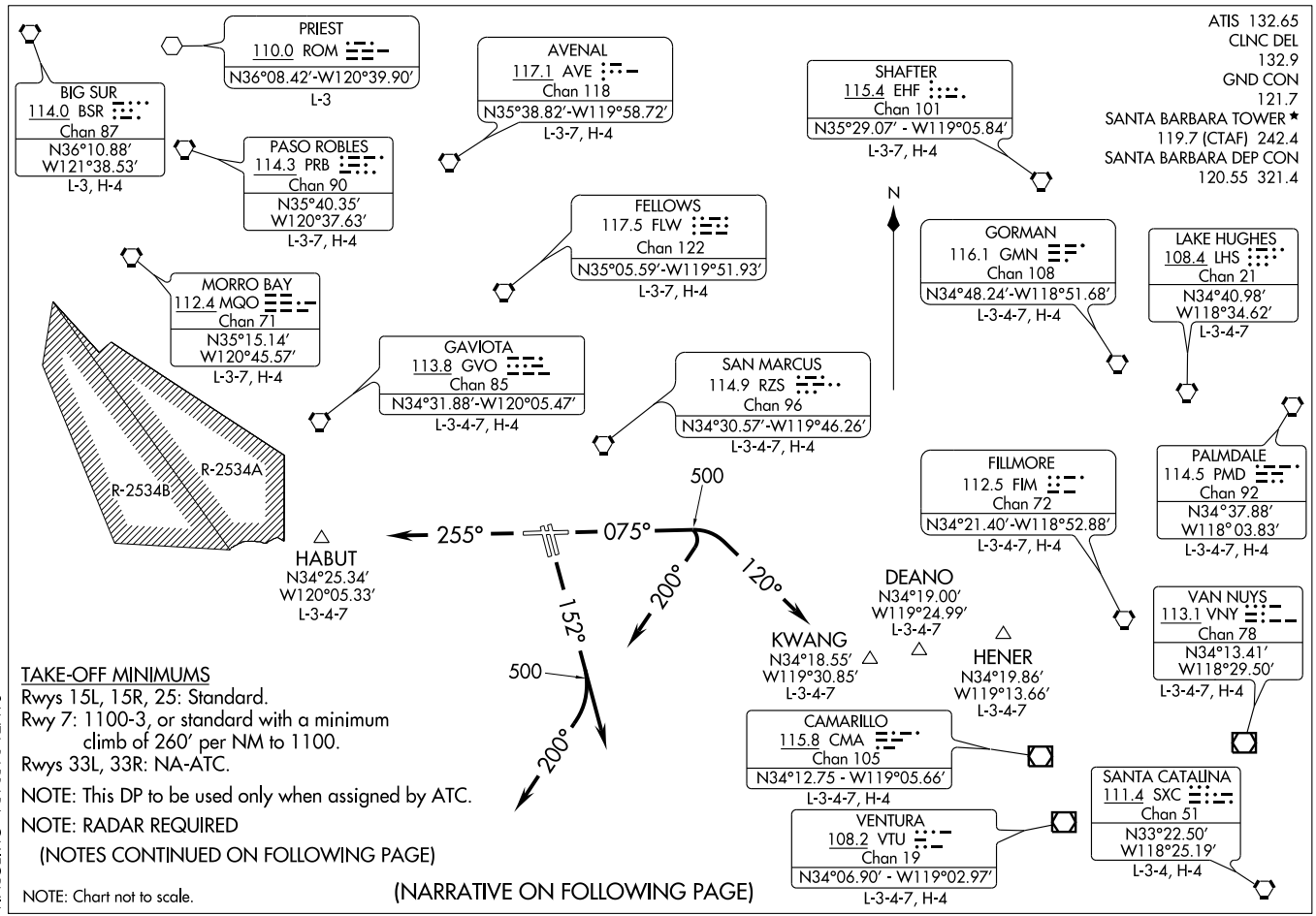




CATEGORY	A	B	C	D
LPV DA	380/40 367 (400-¾)			
LNAV/VNAV DA	866-2 853 (900-2)		866-2½ 853 (900-2½)	866-2¾ 853 (900-2¾)
LNAV MDA	560/24 547 (600-½)		560/50 547 (600-1)	560/60 547 (600-1¼)
CIRCLING	800-1 786 (800-1)	800-1¼ 786 (800-1¼)	800-2¼ 786 (800-2¼)	1000-3 986 (1000-3)

HIRL Rwy 7-25
MIRL Rwy 15R-33L L
REIL Rwy 15R L
REIL Rwy 25

SW-3, 14 JAN 2010 to 11 FEB 2010



SANTA BARBARA TWO DEPARTURE (SBA2.SBA) 09239

SI-378 (FAA)

SANTA BARBARA MUNI (SBA)

SANTA BARBARA, CALIFORNIA

TAKE-OFF MINIMUMS

Rwys 15L, 15R, 25: Standard.

Rwy 7: 1100-3, or standard with a minimum climb of 260' per NM to 1100.

Rwys 33L, 33R: NA-ATC.

NOTE: This DP to be used only when assigned by ATC.

NOTE: RADAR REQUIRED

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SANTA BARBARA TWO DEPARTURE

DEPARTURE ROUTE DESCRIPTION

SOUTH OR EAST ROUTE OF FLIGHT:

TAKE-OFF RUNWAY 7: Climb heading 075° to 500, then climbing right turn via heading 120°. Thence....

TAKE-OFF RUNWAYS 15L/15R: Climb heading 152°. Thence....

TAKE-OFF RUNWAY 25: Climb heading 255°. Thence....

....via radar vectors, maintain 3000. Expect further clearance to filed altitude 5 minutes after departure.

NORTH OR WEST ROUTE OF FLIGHT:

TAKE-OFF RUNWAY 7: Climb heading 075° to 500, then climbing right turn via heading 200°. Thence....

TAKE-OFF RUNWAYS 15L/15R: Climb heading 152° to 500, then climbing right turn via heading 200°. Thence....

TAKE-OFF RUNWAY 25: Climb heading 255°. Thence....

....via radar vectors, maintain 3000. Expect further clearance to filed altitude 5 minutes after departure.

TAKE-OFF OBSTACLE NOTES

Rwy 7: OL on lighted windsock, buildings, and multiple trees beginning 207′ from DER, 244′ left of centerline, up to 20′ AGL/98′ MSL.
Light poles and multiple trees beginning 938′ from DER, 587′ right of centerline, up to 20′ AGL/74′ MSL.

Rwy 15L: Multiple trees beginning 1289′ from DER, 115′ right of centerline, up to 20′ AGL/65′ MSL.

Rwy 15R: Trees 1325′ from DER, 246′ left of centerline, 20′ AGL/59′ MSL.
Trees 1287′ from DER, 352′ right of centerline, 20′ AGL/65′ MSL.

Rwy 25: Multiple trees beginning 118′ from DER, 272′ left of centerline, up to 20′ AGL/127′ MSL.
Multiple trees beginning 1354′ from DER, 791′ right of centerline, up to 40′ AGL/105′ MSL.

SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC GVO	APP CRS	Rwy Idg 6052
113.8	279°	TDZE 10
Chan 85		Apt Elev 10

VOR or GPS RWY 25

SANTA BARBARA MUNI (SBA)

MISSED APPROACH: Climbing left turn to 4000 via heading 205° and GVO R-127 to GOLET Int and hold.

ATIS	SANTA BARBARA APP CON	SANTA BARBARA TOWER★	GND CON	CLNC DEL	UNICOM
132.65	120.55 321.4 (151°-329°) 125.4 291.1 (330°-150°)	119.7 (CTAF) L 242.4	121.7	132.9	122.95

GAVIOTA
113.8 GVO
Chan 85

SAN MARCUS
114.9 RZS
Chan 96

4697
5080
4298
4229
6000 to Zacks Int 099° (20.7)
R-099
4000
4864
2629
480
461
379
237
(MARNS)
6000 (8) 145°
372
334
640
(IAF)
ZACKS INT
GVO 20.7
R-127
R-145
279°
2100 NoPT
279° (10.9)
GVO R-099
144°
324°
MSA GVO 25 NM
140°
8000
4600
360°
R-185
GOLET
GVO 18.7
127°
307°
R-250
112.5 FIM
Chan 72
(IAF)
KWANG
GVO 31.6
10 NM

SW-3, 14 JAN 2010 to 11 FEB 2010

ELEV 10

111±

279° 6.5 NM from FAF

TWR
155±

6052 X 150

4184 X 100

4178 X 75

25

TDZE 10

33L 33R

166±

HIRL Rwy 7-25
MIRL Rwy 15R-33L L
REIL Rwy 15R L
REIL Rwy 25

FAF to MAP 6 NM					
Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00

4000	GVO	GOLET
205°	R-127	△
	113.8	

ZACKS INT
GVO 20.7

Remain within 10 NM

099°

3000

279°

2100

(MARNS)
GVO
14.7

2.96°
TCH 45

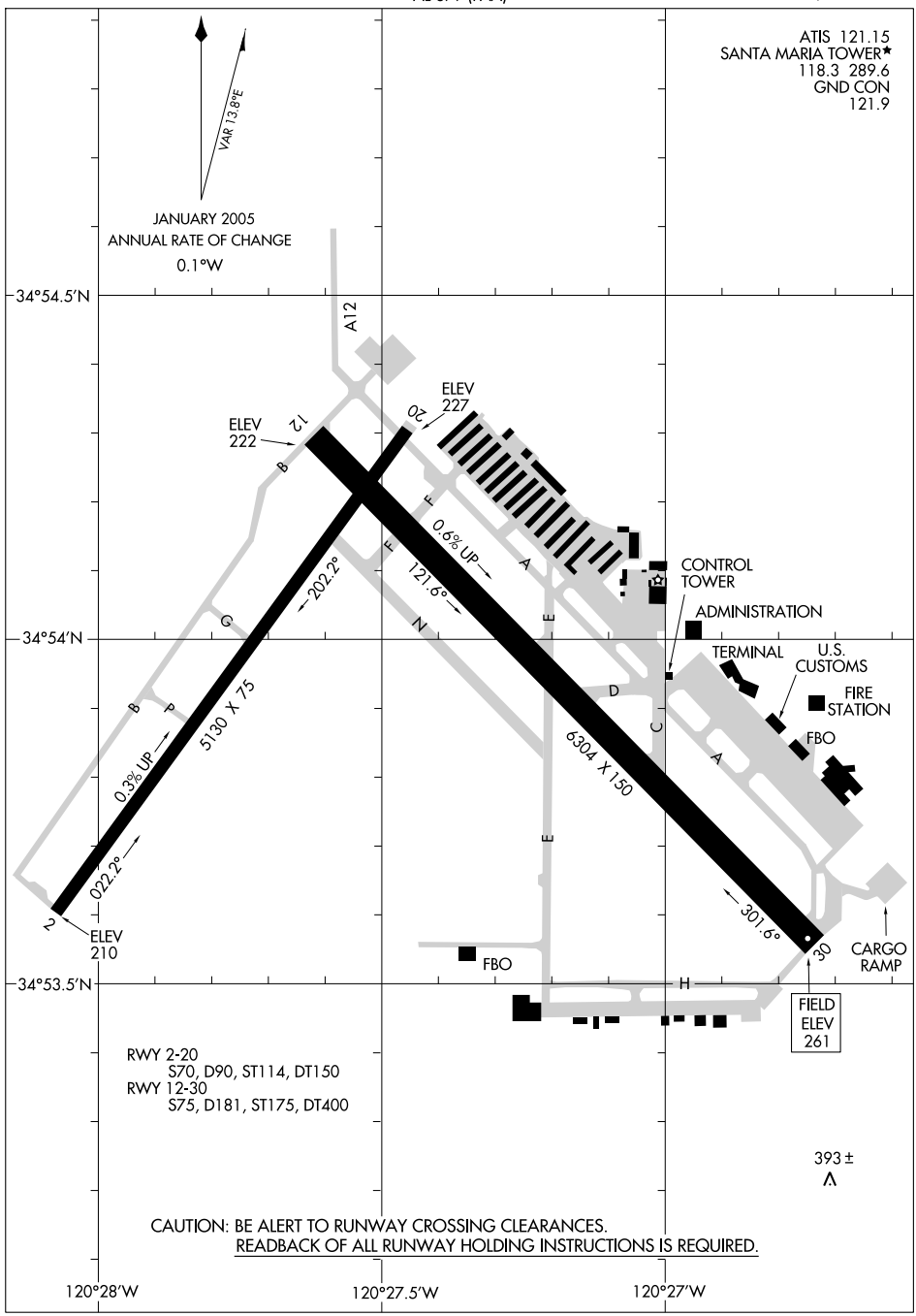
0.5 6 NM

CATEGORY	A	B	C	D
S-25	920-1¼	910 (1000-1¼)	920-2¾ 910 (1000-2¾)	920-3 910 (1000-3)
CIRCLING	920-1¼	910 (1000-1¼)	920-2¾ 910 (1000-2¾)	960-3 950 (1000-3)

07074

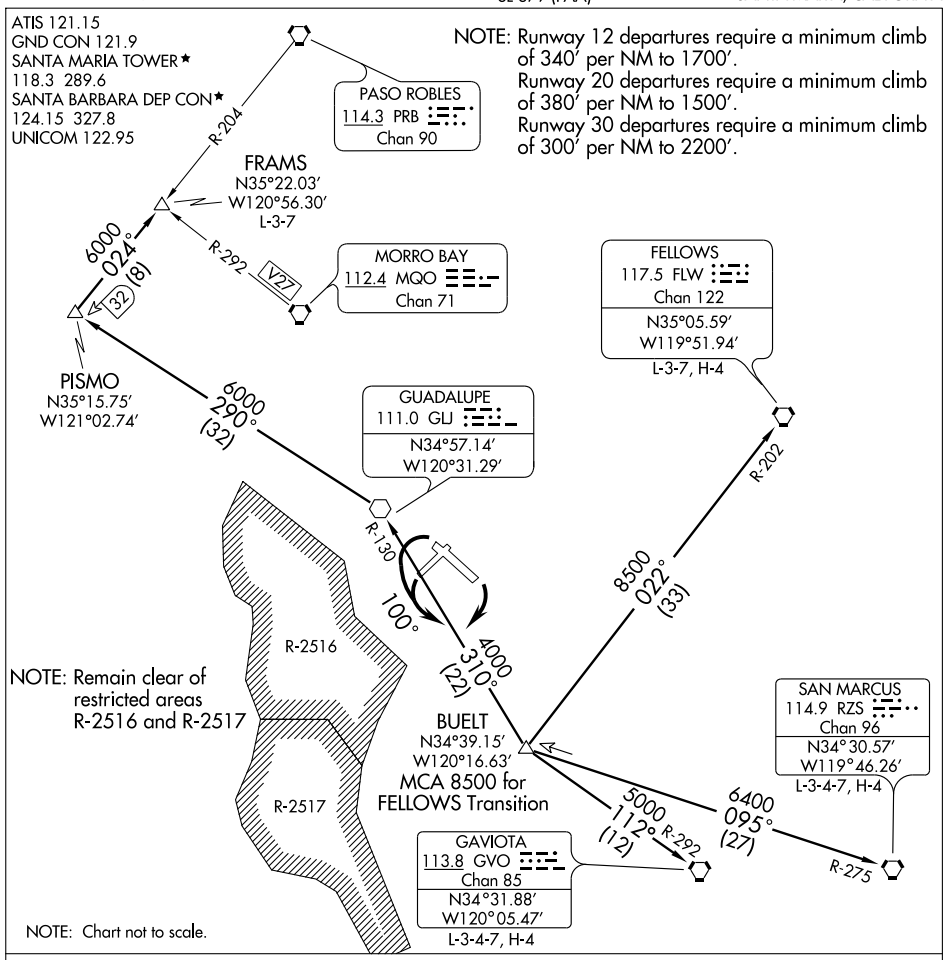
AIRPORT DIAGRAM

SANTA MARIA PUBLIC/CAPTAIN G. ALLAN HANCOCK FIELD (SMX)
AL-379 (FAA)
SANTA MARIA, CALIFORNIA



SW-3, 14 JAN 2010 to 11 FEB 2010

BUELT ONE DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 12: Climbing right turn to intercept and proceed via GLJ R-130 to BUELT INT, thence via (assigned route) or (transition).

TAKE-OFF RUNWAYS 20 and 30: Climbing left turn via heading 100° to intercept and proceed via GLJ R-130 to BUELT INT, thence via (assigned route) or (transition).

FELLOWS TRANSITION (BUELT1.FLW): From over BUELT INT via FLW R-202 to FLW VORTAC.

FRAMS TRANSITION (BUELT1.FRAMS): From over BUELT INT via GLJ R-130 to GLJ VOR, thence via GLJ R-290 to PISMO INT, thence via PRB R-204 to FRAMS INT.

GAVIOTA TRANSITION (BUELT1.GVO): From over BUELT INT via GVO R-292 to GVO VORTAC.

SAN MARCUS TRANSITION (BUELT1.RZS): From over BUELT INT via RZS R-275 to RZS VORTAC.

SW-3, 14 JAN 2010 to 11 FEB 2010

SANTA MARIA, CALIFORNIA AL-379 (FAA)

LOC/DME I-SMX	APP CRS	Rwy Idg 6304
108.9 Chan 26	120°	TDZE 240
		Apt Elev 261

ILS or LOC RWY 12

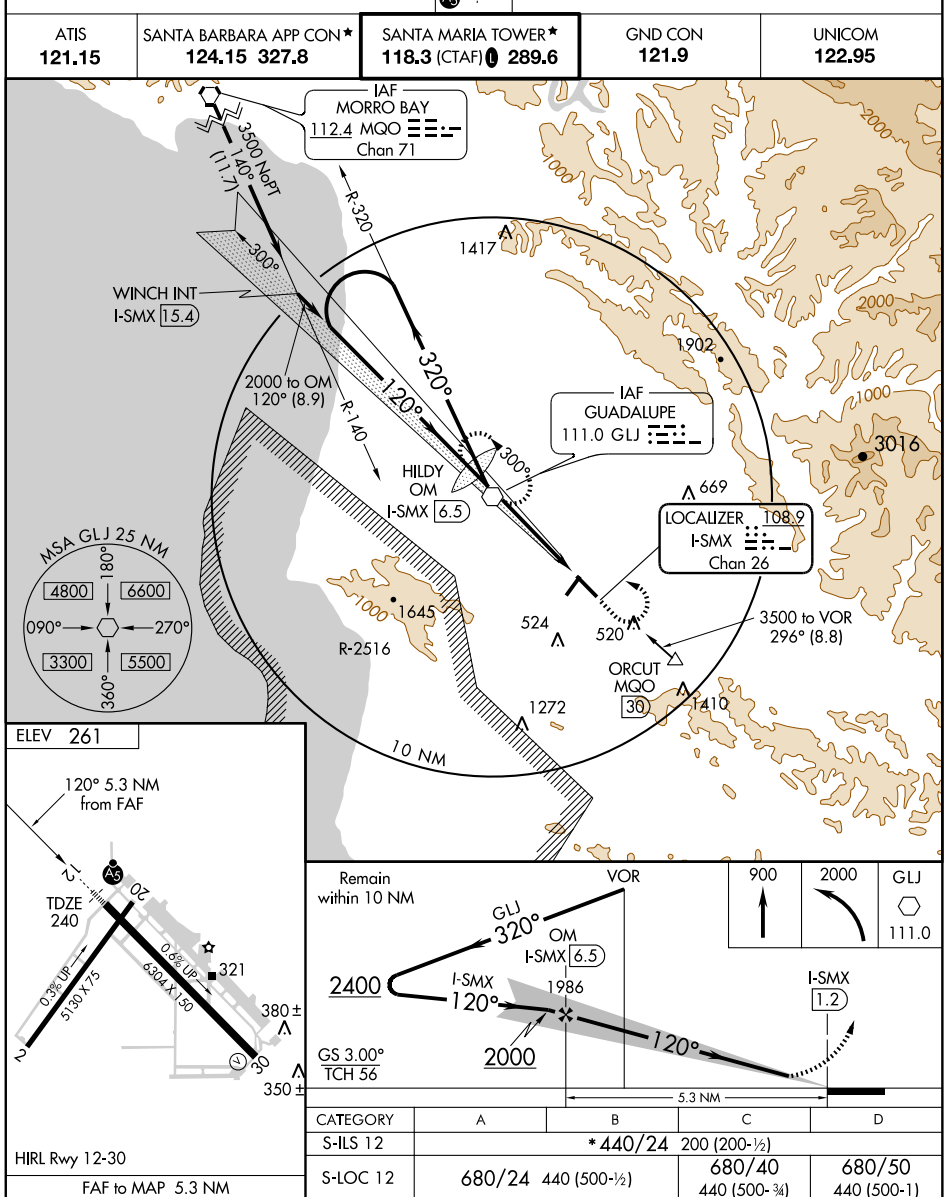
SANTA MARIA PUBLIC/CAPTAIN G. ALLAN HANCOCK FIELD (SMX)

T A * RVR 1800 authorized with the use of FD or AP or HUD to DA.

MALSR

MISSED APPROACH: Climb to 900, then climbing left turn to 2000 direct GLJ VOR and hold.

ATIS	SANTA BARBARA APP CON*	SANTA MARIA TOWER*	GND CON	UNICOM
121.15	124.15 327.8	118.3 (CTAF) L 289.6	121.9	122.95



ELEV 261

HIRL Rwy 12-30

FAF to MAP 5.3 NM					
Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46

CATEGORY	A	B	C	D
S-ILS 12	*440/24 200 (200-½)			
S-LOC 12	680/24 440 (500-½)		680/40 440 (500-¾)	680/50 440 (500-1)
CIRCLING	820-1 559 (600-1)	840-1 579 (600-1)	860-1½ 599 (600-1½)	1320-3 1059 (1100-3)

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-SMX	APP CRS	Rwy Idg N/A
108.9 Chan 26	300°	TDZE N/A
		Apt Elev 261

LOC/DME BC-A

SANTA MARIA PUBLIC/CAPTAIN G. ALLAN HANCOCK FIELD (SMX)

MISSED APPROACH: Climb to 2000 direct GLJ VOR and hold.

ATIS	SANTA BARBARA APP CON★	SANTA MARIA TOWER★	GND CON	UNICOM
121.15	124.15 327.8	118.3 (CTAF) 289.6	121.9	122.95

GUADALUPE 111.0 GLJ

R-300 120° 300°

LOCALIZER 108.9 I-SMX Chan 26

PATER I-SMX 2

CAMCO I-SMX 5.8

KOAKS I-SMX 11.6

RZS 29

MADOO RZS 14.9

IAF SAN MARCUS 114.9 RZS Chan 96

R-2516

10 NM

MSA GLJ 25 NM

180° 4800 6600 090° 270° 3300 5500 360°

R-286 120° 286° (14.1) 6000 286° (14.9)

669 3016 4911 3388 3726 1645 524 595± 1410 1272 1984 4341 4528 4298 4229

1000 2000 3000 4000

BACK COURSE

ELEV 261

0.3% UP 5130 X 75 0.5% UP 6304 X 150 321 380± 350± 30

300° 6 NM from FAF

2000	GLJ 111.0

Use I-SMX DME when on LOC course.

KOAKS I-SMX 11.6/RZS 29

CAMCO I-SMX 5.8

PATER I-SMX 2

I-SMX 0.5

4600 300° 3000 1720

Procedure Turn NA

Disregard glide slope indications

0.7 1.5 3.8 NM 5.8 NM

CATEGORY	A	B	C	D
CIRCLING	1100-1 839 (900-1)	1100-1¼ 839 (900-1¼)	1100-2½ 839 (900-2½)	1320-3 1059 (1100-3)

HIRL Rwy 12-30

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	6304
121°	TDZE	240
	Apt Elev	261

RNAV (GPS) RWY 12

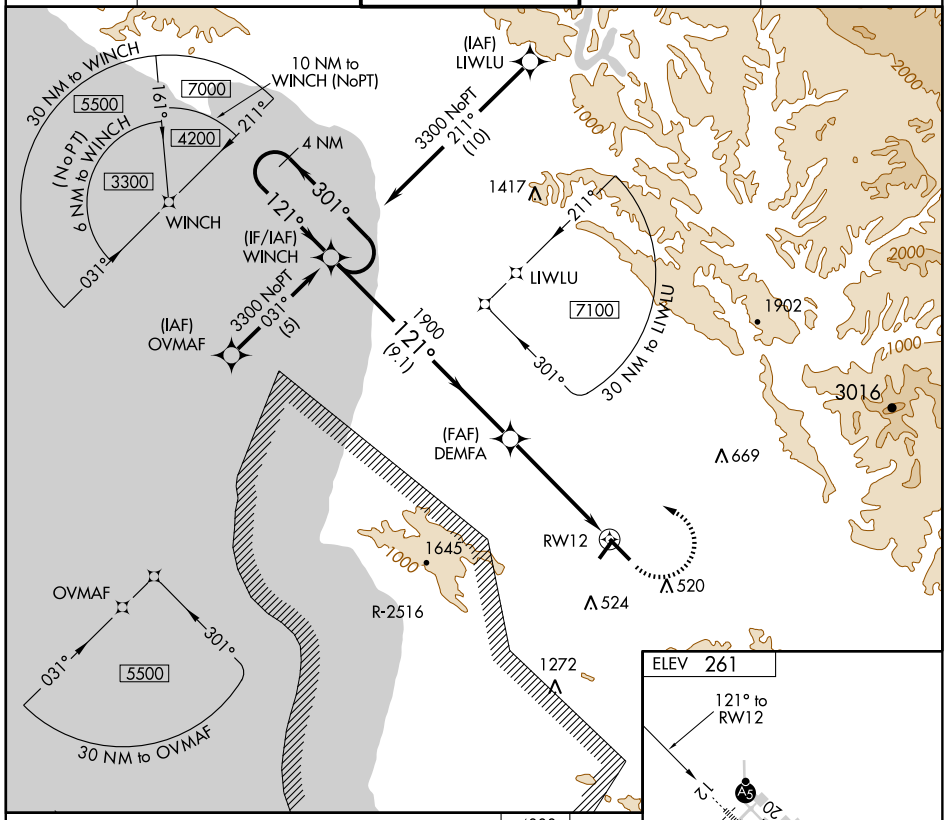
SANTA MARIA PUBLIC/CAPTAIN G. ALLAN HANCOCK FIELD (SMX)

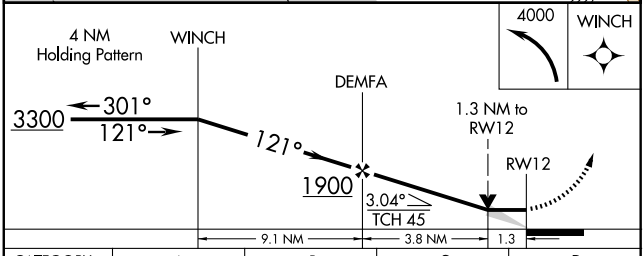
DME/DME RNP-0.3 NA.

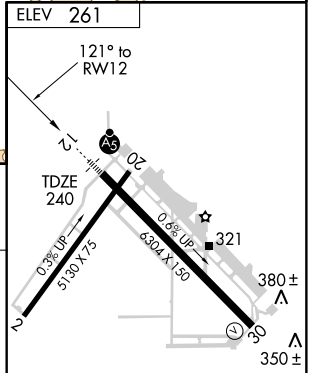
MALSR

MISSED APPROACH: Climbing left turn to 4000 direct WINCH WP and hold.

ATIS	SANTA BARBARA APP CON★	SANTA MARIA TOWER★	GND CON	UNICOM
121.15	124.15 327.8	118.3 (CTAF) L 289.6	121.9	122.95







CATEGORY	A	B	C	D
LNAV MDA	680/24	440 (500-½)	680/40 440 (500-¾)	680/50 440 (500-1)
CIRCLING	820-1	559 (600-1)	860-1¾ 599 (600-1¾)	1320-3 1059 (1100-3)

HIRL Rwy 12-30

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	6304
316°	TDZE	261
	Apt Elev	261

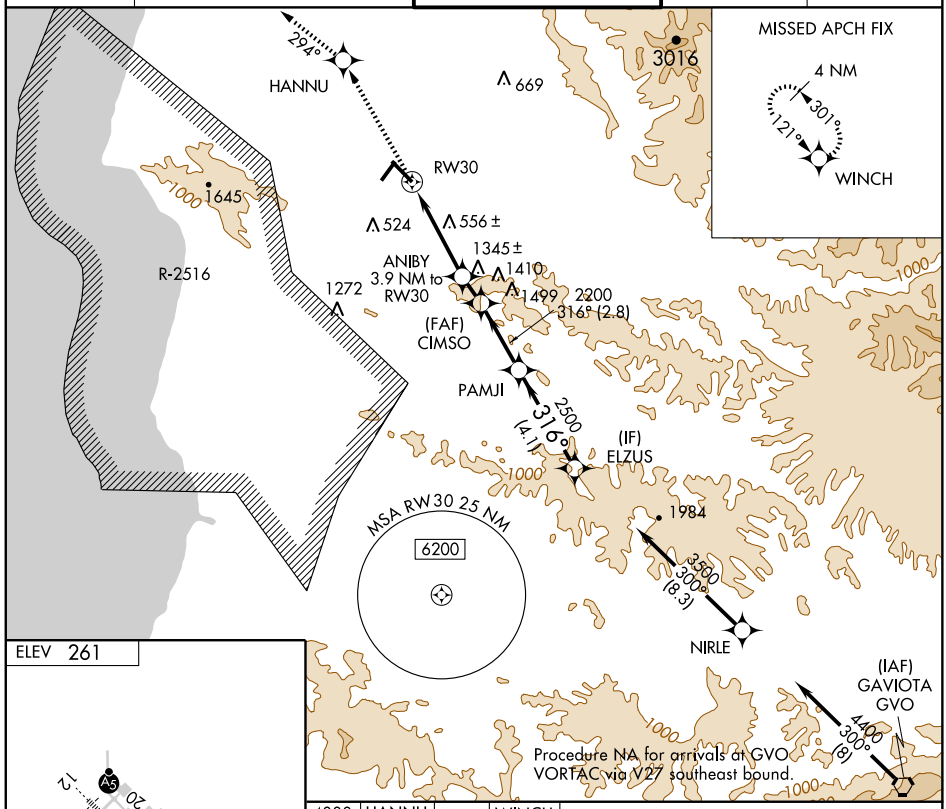
RNAV (GPS) RWY 30

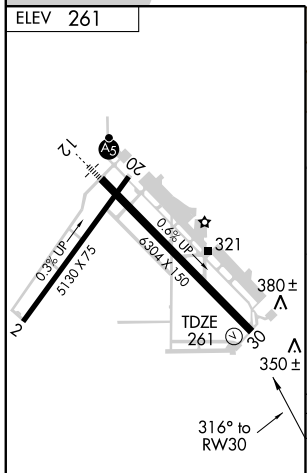
SANTA MARIA PUBLIC/CAPTAIN G. ALLAN HANCOCK FIELD (SMX)

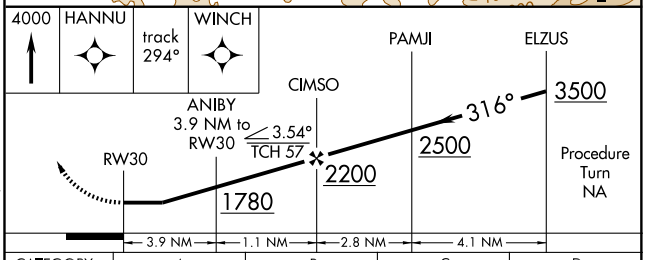
DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Vandenburg altimeter setting and increase all MDA 60 feet.

MISSED APPROACH: Climb to 4000 direct HANNU and via track 294° to WINCH and hold.

ATIS	SANTA BARBARA APP CON ★	SANTA MARIA TOWER ★	GND CON	UNICOM
121.15	124.15 327.8	118.3 (CTAF) L 289.6	121.9	122.95







CATEGORY	A	B	C	D
LNAV MDA	1600-1¼ 1339 (1400-1¼)	1600-1½ 1339 (1400-1½)	1600-3 1339 (1400-3)	NA
CIRCLING	1600-1¼ 1339 (1400-1¼)	1600-1½ 1339 (1400-1½)	1600-3 1339 (1400-3)	NA

HIRL Rwy 12-30

SW-3, 14 JAN 2010 to 11 FEB 2010

VOR GLJ	APP CRS	Rwy Idg	6304
111.0	117°	TDZE	240
		Apt Elev	261

VOR RWY 12

SANTA MARIA PUBLIC/CAPTAIN G. ALLAN HANCOCK FIELD (SMX)

MALSR

MISSED APPROACH: Climbing left turn to 2000 direct GLJ VOR and hold.

ATIS	SANTA BARBARA APP CON★	SANTA MARIA TOWER★	GND CON	UNICOM
121.15	124.15 327.8	118.3 (CTAF) L 289.6	121.9	122.95

IAF MORRO BAY 112.4 MQO Chan 71

4000 NoPT

129° (11.5)

R-129

GASRE INT

1417

R-254

117.5 FLW Chan 122

1700

133° (10)

R-313

178°

358°

1902

133°

R-300

120°

300°

IAF GUADALUPE 111.0 GLJ

669

3016

3388

117°

1645

3500

296° (8.8)

520

524

R-2516

ORCUT

1410

1272

10 NM

MSA GLJ 25 NM

180°

4800

6500

090°

270°

3300

5600

360°

Remain within 10 NM

VOR

313°

133°

3100

1700

3.25°

TCH 50

117°

4.1 NM

2000

GLJ

111.0

ELEV 261

117° 4.1 NM from FAF

TDZE 240

0.3% UP

5130 X 75

0.6% UP

6304 X 150

321

380±

350±

HIRL Rwy 12-30

CATEGORY	A	B	C	D
S-12	680/24	440 (500-½)	680/40 440 (500-¾)	680/50 440 (500-1)
CIRCLING	820-1	559 (600-1)	860-1¾ 599 (600-1¾)	1320-3 1059 (1100-3)

FAF to MAP 4.1 NM

Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22

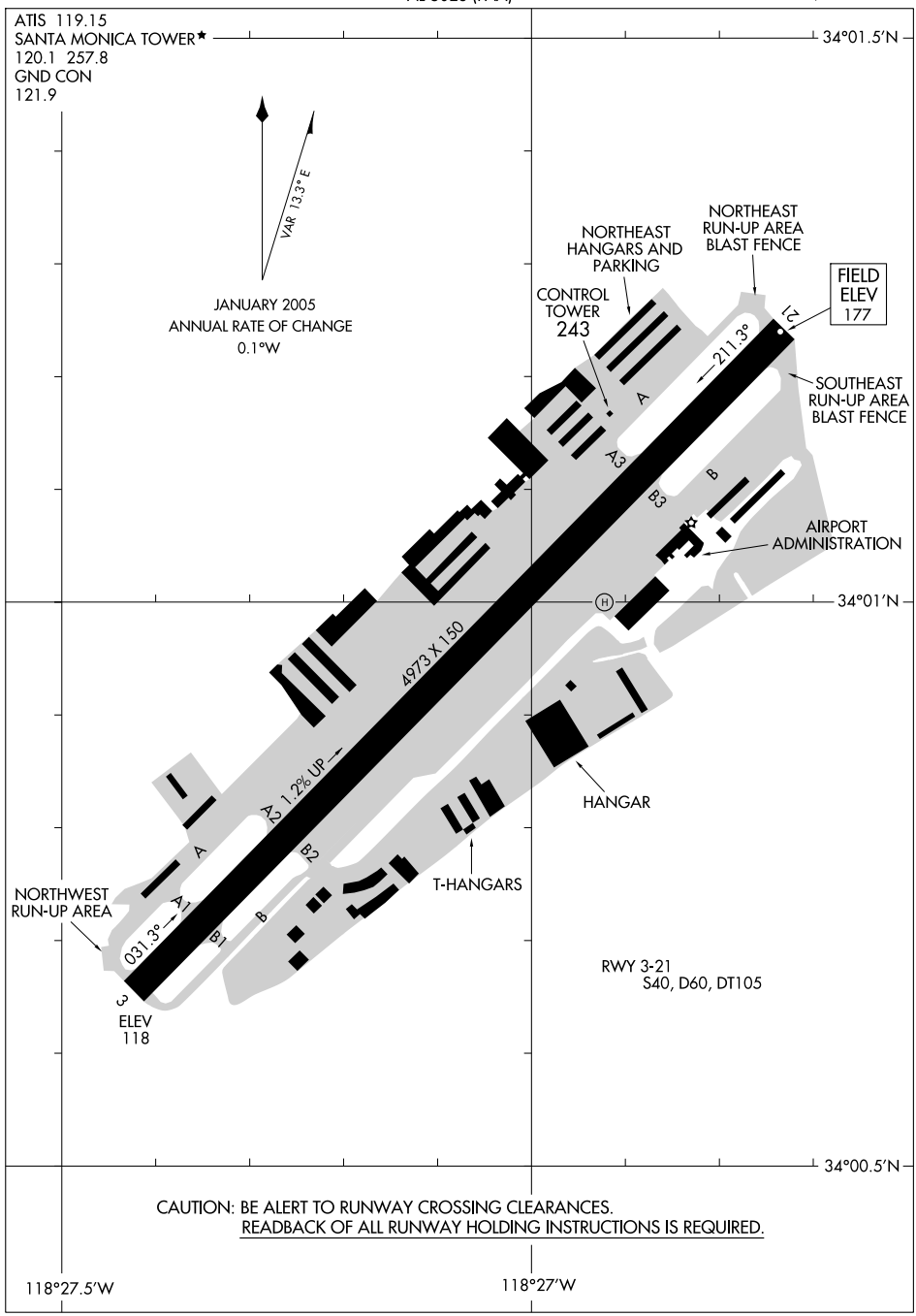
SW-3, 14 JAN 2010 to 11 FEB 2010

06327

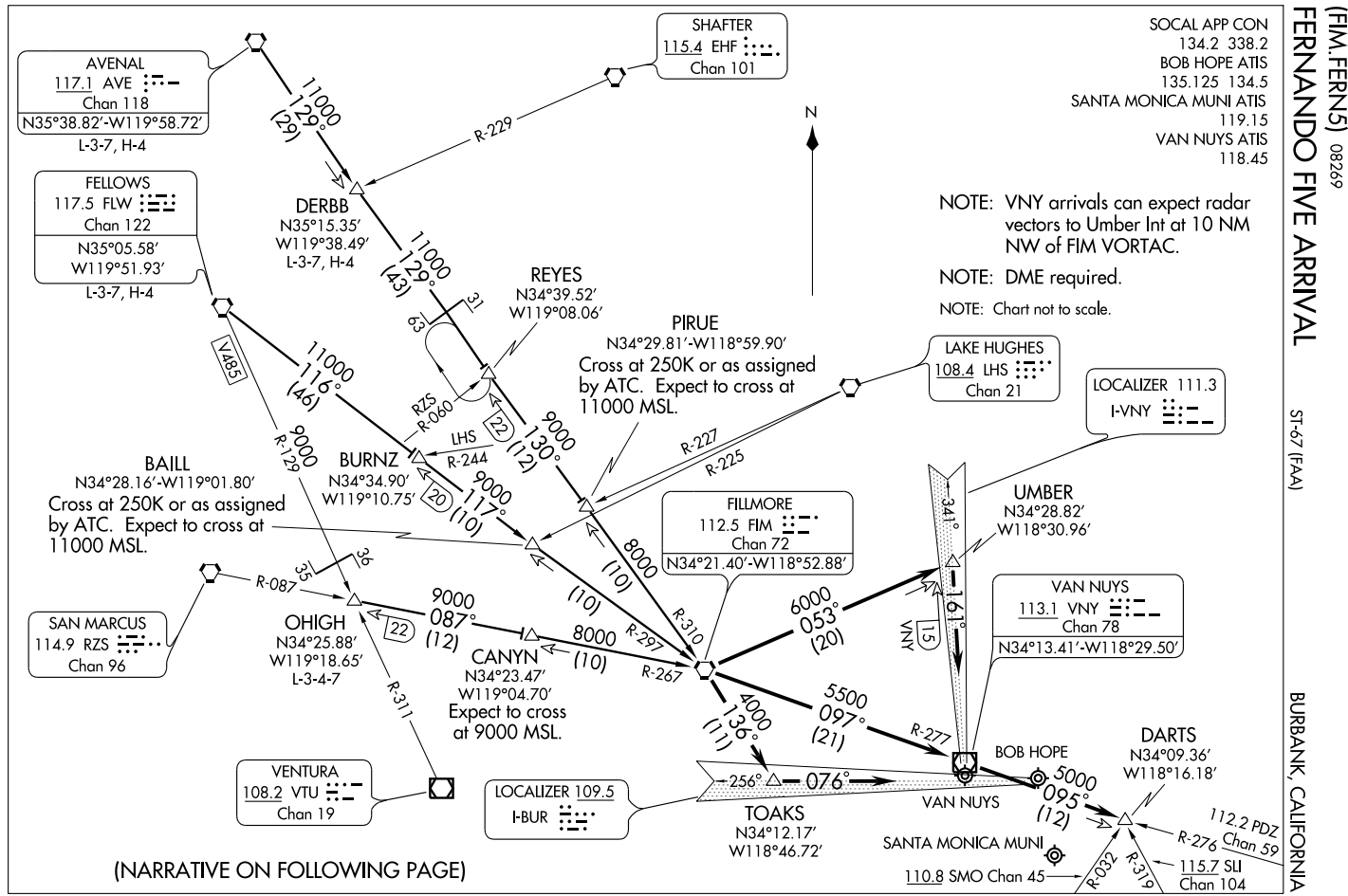
AIRPORT DIAGRAM

AL-5023 (FAA)

SANTA MONICA MUNI (SMO)
SANTA MONICA, CALIFORNIA



SW-3, 14 JAN 2010 to 11 FEB 2010


FERNANDO FIVE ARRIVAL (FIM.FERN5) 08269
ST-67 (FAA)
BURBANK, CALIFORNIA
SOCAL APP CON
134.2 338.2
BOB HOPE ATIS
135.125 134.5
SANTA MONICA MUNI ATIS
119.15
VAN NUYS ATIS
118.45
NOTE: VNY arrivals can expect radar vectors to Umber Int at 10 NM NW of FIM VORTAC.
NOTE: DME required.
NOTE: Chart not to scale.
N
AVENAL
117.1 AVE
Chan 118
N35°38.82'-W119°58.72'
L-3-7, H-4
SHAFTER
115.4 EHF
Chan 101
FELLOWS
117.5 FLW
Chan 122
N35°05.58'
W119°51.93'
L-3-7, H-4
DERBB
N35°15.35'
W119°38.49'
L-3-7, H-4
REYES
N34°39.52'
W119°08.06'
PIRUE
N34°29.81'-W118°59.90'
Cross at 250K or as assigned by ATC. Expect to cross at 11000 MSL.
LAKE HUGHES
108.4 LHS
Chan 21
LOCALIZER 111.3
I-VNY
BAILL
N34°28.16'-W119°01.80'
Cross at 250K or as assigned by ATC. Expect to cross at 11000 MSL.
BURNZ
N34°34.90'
W119°10.75'
FILLMORE
112.5 FIM
Chan 72
N34°21.40'-W118°52.88'
UMBER
N34°28.82'
W118°30.96'
VAN NUYS
113.1 VNY
Chan 78
N34°13.41'-W118°29.50'
SAN MARCUS
114.9 RZS
Chan 96
OHIGH
N34°25.88'
W119°18.65'
L-3-4-7
CANYN
N34°23.47'
W119°04.70'
Expect to cross at 9000 MSL.
VENTURA
108.2 VTU
Chan 19
LOCALIZER 109.5
I-BUR
TOAKS
N34°12.17'
W118°46.72'
BOB HOPE
VAN NUYS
DARTS
N34°09.36'
W118°16.18'
SANTA MONICA MUNI
110.8 SMO Chan 45
112.2 PDZ Chan 59
115.7 SLI Chan 104
11000 129° (29)
R-229
11000 129° (43)
31
63
V485
11000 116° (46)
RZS R-080
LHS R-244
22
9000 130° (12)
9000 R-129
20
9000 117° (10)
R-227
R-225
341°
8000 (10)
6000 053° (20)
161°
15 VNY
R-087
35
36
9000 087° (12)
22
8000 (10)
R-297
R-310
R-267
R-311
4000 136° (11)
5500 097° (21)
R-277
256°
076°
5000 095° (12)
R-276
R-032
R-319
(NARRATIVE ON FOLLOWING PAGE)

ARRIVAL DESCRIPTION

AVENAL TRANSITION (AVE.FERN5): From over AVE VORTAC via AVE R-129 and FIM R-310 to FIM VORTAC. Thence....

DERBB TRANSITION (DERBB.FERN5): From over DERBB INT via AVE R-129 and FIM R-310 to FIM VORTAC. Thence....

FELLOWS TRANSITION (FLW.FERN5): From over FLW VORTAC via FLW R-116 and FIM R-297 to FIM VORTAC. Thence....

OHIGH TRANSITION (OHIGH.FERN5): From over OHIGH INT via FIM R-267 to FIM VORTAC. Thence....

....From over FIM VORTAC:

LANDING BOB HOPE: Via FIM R-136 to TOAKS INT, then via I-BUR localizer. Expect ILS RWY 8.

LANDING SANTA MONICA MUNI: Via FIM R-097 and VNY R-277 to VNY VOR/DME; then via VNY R-095 to DARTS INT. Expect VOR-A approach.

LANDING VAN NUYS RWY 16: Via FIM R-053 to UMBER INT, then via I-VNY localizer. Expect ILS RWY 16R.

LANDING VAN NUYS RWY 34: Via FIM R-136 to TOAKS INT, then via I-BUR localizer. Expect LDA-C; circle to land RWY 34L.

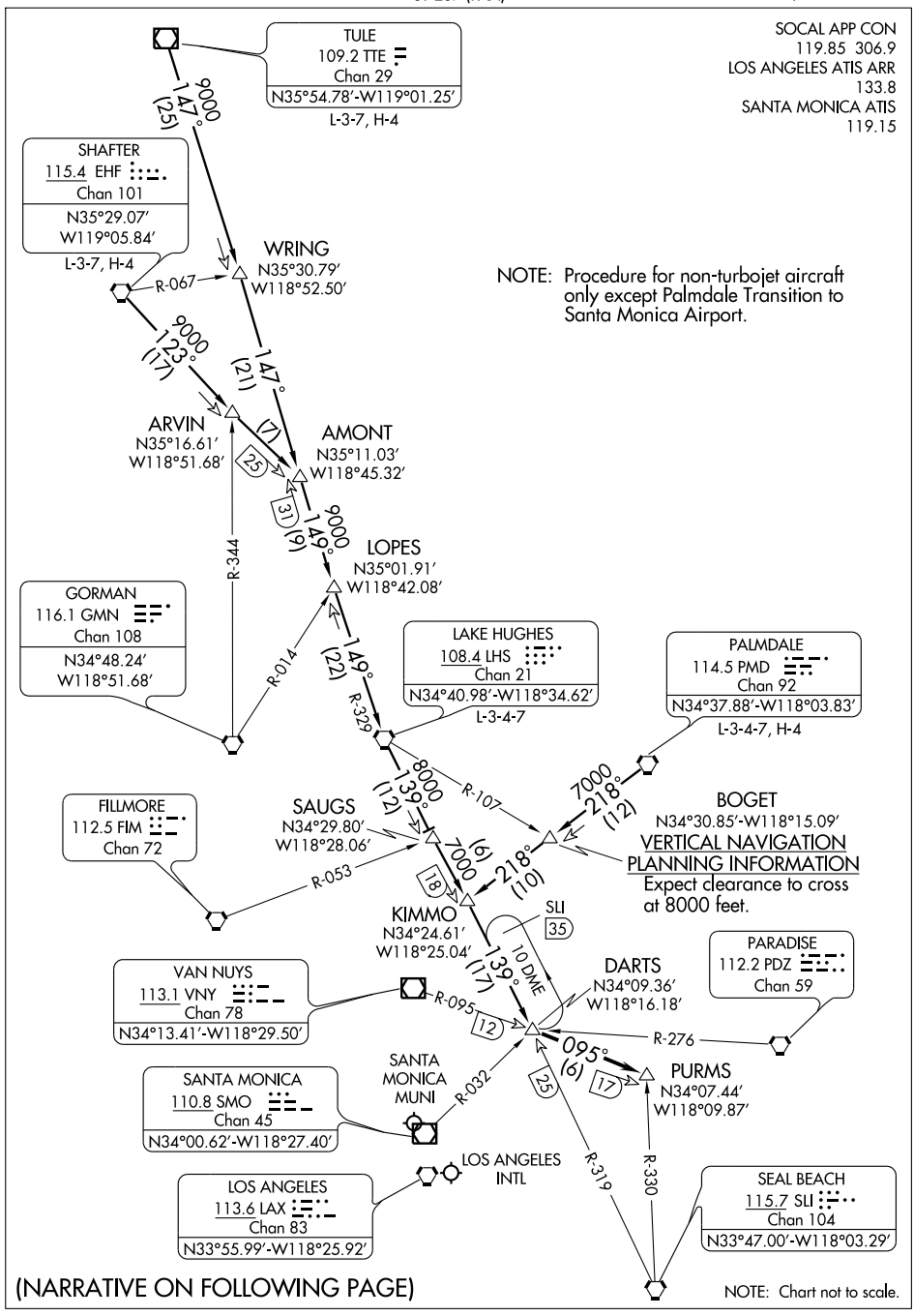
SW-3, 14 JAN 2010 to 11 FEB 2010

(DARTS.KIMMO2) 09351

KIMMO TWO ARRIVAL

ST-237 (FAA)

LOS ANGELES, CALIFORNIA



(NARRATIVE ON FOLLOWING PAGE)

SW-3, 14 JAN 2010 to 11 FEB 2010

KIMMO TWO ARRIVAL

ARRIVAL ROUTE DESCRIPTION

LAKE HUGHES TRANSITION (LHS.KIMMO2): From over LHS VORTAC via LHS R-139 to DARTS INT. Thence....
PALMDALE TRANSITION (PMD.KIMMO2): From over PMD VORTAC via PMD R-218 to KIMMO INT, then via LHS R-139 to DARTS INT. Thence....
SHAFTER TRANSITION (EHF.KIMMO2): From over EHF VORTAC via EHF R-123 and LHS R-329 to LHS VORTAC, then via LHS R-139 to DARTS INT. Thence....
TULE TRANSITION (TTE.KIMMO2): From over TTE VOR/DME via TTE R-147 and LHS R-329 to LHS VORTAC, then via LHS R-139 to DARTS INT. Thence....

....LANDING LOS ANGELES INTL: From over DARTS INT via VNY R-095 to PURMS INT. Expect radar vectors to final approach course.
....LANDING SANTA MONICA MUNI: From over DARTS INT expect radar vectors to final approach course.

SW-3, 14 JAN 2010 to 11 FEB 2010

PEER ONE DEPARTURE (RNAV)

ATIS
119.15
GND CON
121.9
SANTA MONICA TOWER ★
120.1 257.8
SOCAL DEP CON
125.2 263.025

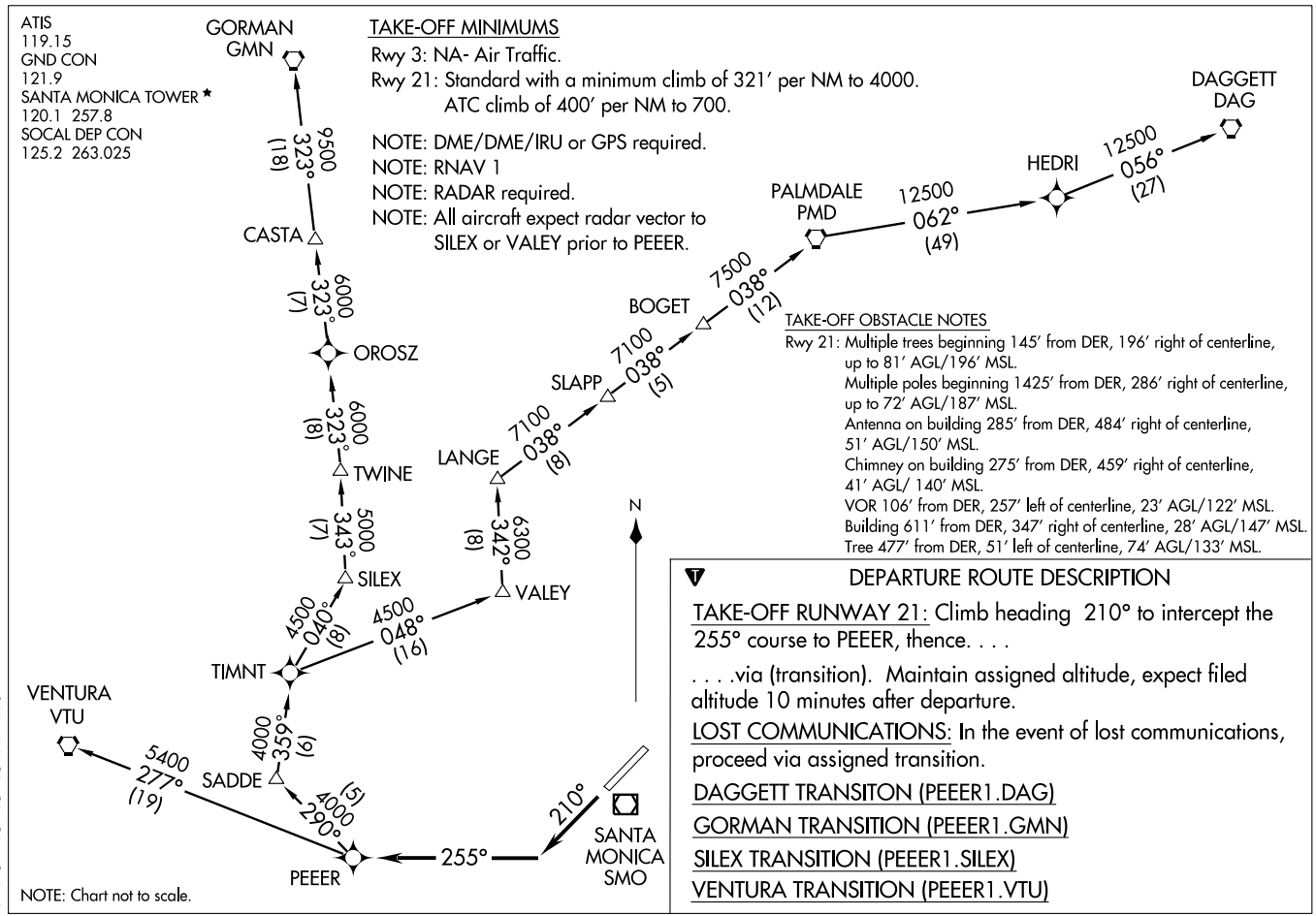
TAKE-OFF MINIMUMS

Rwy 3: NA- Air Traffic.
Rwy 21: Standard with a minimum climb of 321′ per NM to 4000.
ATC climb of 400′ per NM to 700.

NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1
NOTE: RADAR required.
NOTE: All aircraft expect radar vector to SILEX or VALEY prior to PEEER.

TAKE-OFF OBSTACLE NOTES

Rwy 21: Multiple trees beginning 145′ from DER, 196′ right of centerline, up to 81′ AGL/196′ MSL.
Multiple poles beginning 1425′ from DER, 286′ right of centerline, up to 72′ AGL/187′ MSL.
Antenna on building 285′ from DER, 484′ right of centerline, 51′ AGL/150′ MSL.
Chimney on building 275′ from DER, 459′ right of centerline, 41′ AGL/ 140′ MSL.
VOR 106′ from DER, 257′ left of centerline, 23′ AGL/122′ MSL.
Building 611′ from DER, 347′ right of centerline, 28′ AGL/147′ MSL.
Tree 477′ from DER, 51′ left of centerline, 74′ AGL/133′ MSL.



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 21: Climb heading 210° to intercept the 255° course to PEEER, thence. . . .

. . . .via (transition). Maintain assigned altitude, expect filed altitude 10 minutes after departure.

LOST COMMUNICATIONS: In the event of lost communications, proceed via assigned transition.

DAGGETT TRANSITON (PEEER1.DAG)

GORMAN TRANSITION (PEEER1.GMN)

SILEX TRANSITION (PEEER1.SILEX)

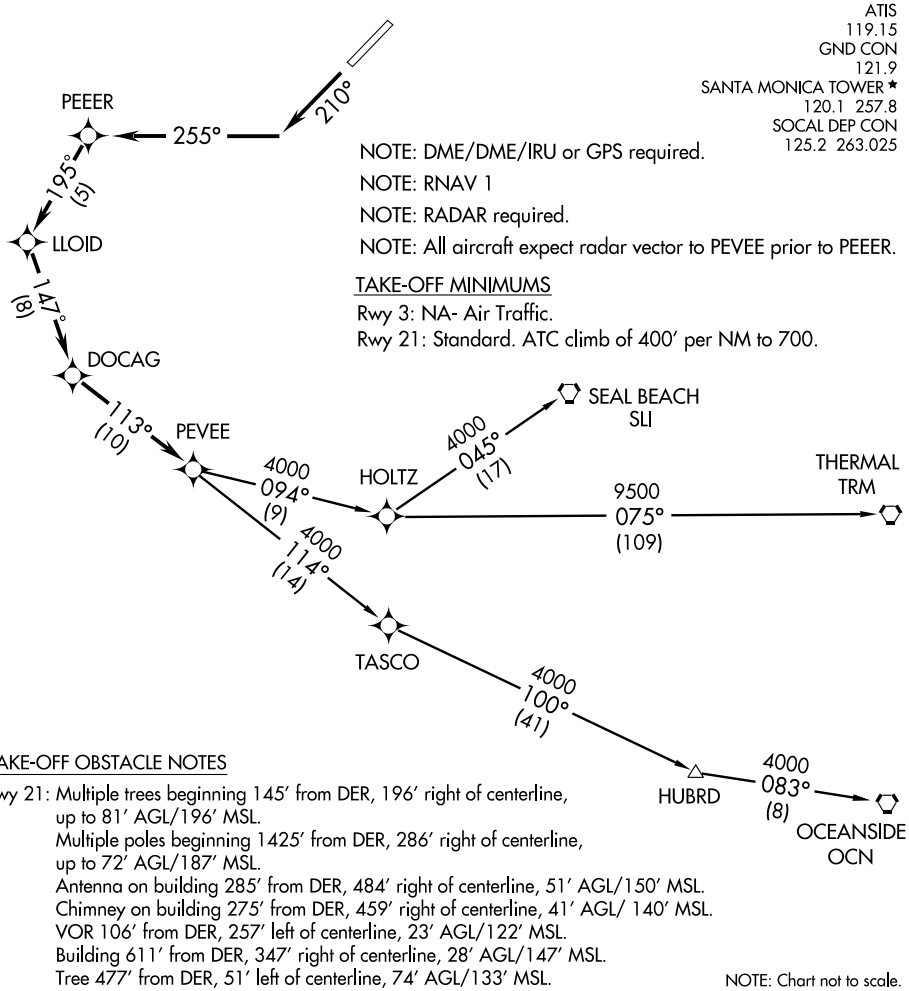
VENTURA TRANSITION (PEEER1.VTU)

PEVEE ONE DEPARTURE (RNAV)

SL-5023 (FAA)

SANTA MONICA MUNI (SMO)
SANTA MONICA, CALIFORNIA

ATIS 119.15
GND CON 121.9
SANTA MONICA TOWER ★ 120.1 257.8
SOCAL DEP CON 125.2 263.025



NOTE: DME/DME/IRU or GPS required.

NOTE: RNAV 1

NOTE: RADAR required.

NOTE: All aircraft expect radar vector to PEVEE prior to PEEER.

TAKE-OFF MINIMUMS

Rwy 3: NA- Air Traffic.

Rwy 21: Standard. ATC climb of 400′ per NM to 700.

TAKE-OFF OBSTACLE NOTES

Rwy 21: Multiple trees beginning 145′ from DER, 196′ right of centerline, up to 81′ AGL/196′ MSL.
Multiple poles beginning 1425′ from DER, 286′ right of centerline, up to 72′ AGL/187′ MSL.
Antenna on building 285′ from DER, 484′ right of centerline, 51′ AGL/150′ MSL.
Chimney on building 275′ from DER, 459′ right of centerline, 41′ AGL/ 140′ MSL.
VOR 106′ from DER, 257′ left of centerline, 23′ AGL/122′ MSL.
Building 611′ from DER, 347′ right of centerline, 28′ AGL/147′ MSL.
Tree 477′ from DER, 51′ left of centerline, 74′ AGL/133′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 21: Climb heading 210° to intercept the 255° course to PEEER, then via depicted route to PEVEE, thence. . . .

. . . .via (transition). Maintain assigned altitude, expect altitude 10 minutes after departure.

LOST COMMUNICATIONS: In the event of lost communications, proceed via assigned transition.

OCEANSIDE TRANSITION (PEVEE1.OCN)

SEAL BEACH TRANSITION (PEVEE1.SLI)

THERMAL TRANSITION (PEVEE1.TRM)

SANTA MONICA, CALIFORNIA AL-5023 (FAA)

VOR/DME SMO	APP CRS	Rwy Idg	N/A
110.8	212°	TDZE	N/A
Chan 45		Apt Elev	177

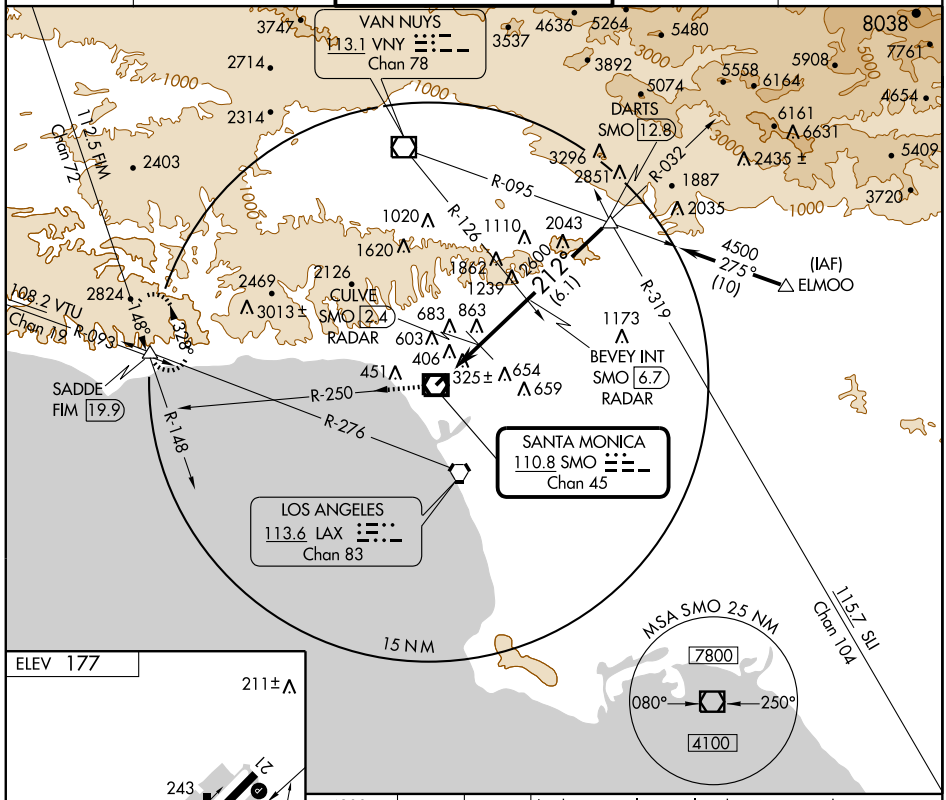
VOR or GPS-A

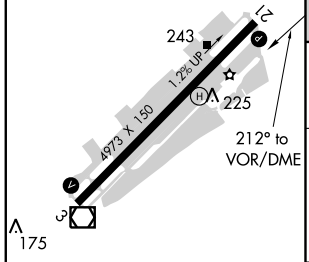
SANTA MONICA MUNI (SMO)

Circling not authorized Northwest of Rwy 3-21.

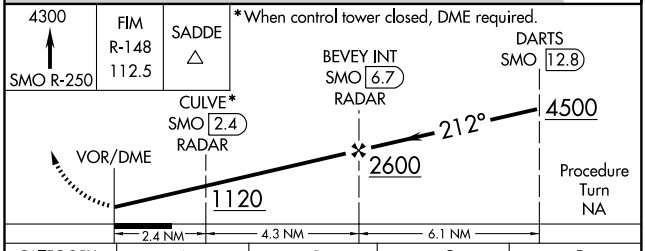
MISSED APPROACH: Climb to 4300 via SMO R-250 and FIM R-148 to SADDE Int and hold, continue climb-in-hold to 4300.

ATIS	SOCAL APP CON	SANTA MONICA TOWER*	GND CON	UNICOM
119.15	128.5 235.975	120.1 (CTAF) L 257.8	121.9	122.95





MIRL Rwy 3-21 L
REIL Rwys 3 and 21 L

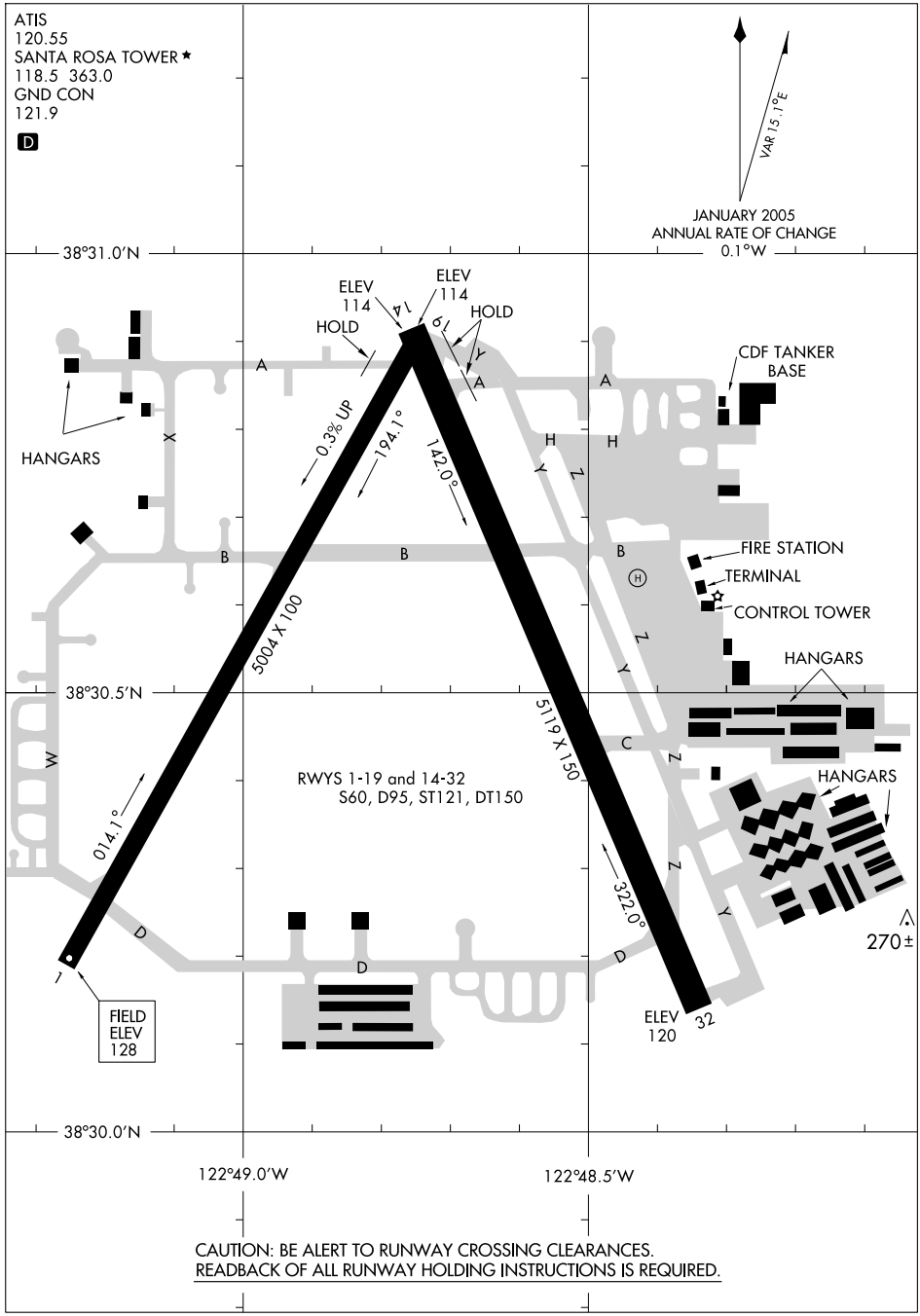


CATEGORY	A	B	C	D
CIRCLING	1120-1¼ 943 (1000-1¼)		1120-2¾ 943 (1000-2¾)	1120-3 943 (1000-3)
CULVE DME/RADAR MINIMA*				
CIRCLING	680-1 503 (600-1)		680-1½ 503 (600-1½)	740-2 563 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

AIRPORT DIAGRAM

SANTA ROSA/ CHARLES M. SCHULZ-SONOMA COUNTY (STS)
AL-696 (FAA)
SANTA ROSA, CALIFORNIA

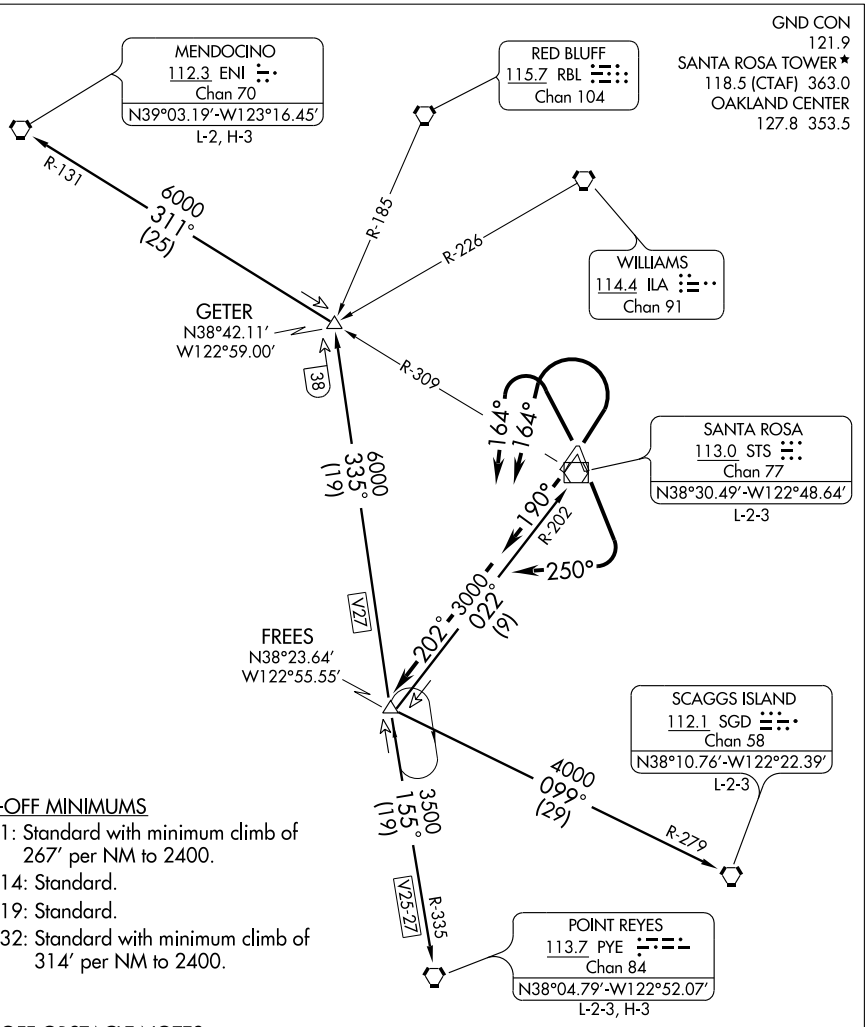


CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

SW-2, 14 JAN 2010 to 11 FEB 2010

FREES SIX DEPARTURE

SANTA ROSA/ CHARLES M. SCHULZ-SONOMA COUNTY (STS)
SL-696 (FAA)
SANTA ROSA, CALIFORNIA



TAKE-OFF MINIMUMS

Rwy 1: Standard with minimum climb of 267′ per NM to 2400.
Rwy 14: Standard.
Rwy 19: Standard.
Rwy 32: Standard with minimum climb of 314′ per NM to 2400.

TAKE-OFF OBSTACLE NOTES

Rwy 1: Tree 739′ from DER, 525′ left of centerline, 40′ AGL/141′ MSL.
Rwy 14: Multiple trees beginning 321′ from DER, 421′ left of centerline, up to 73′ AGL/172′ MSL.
Tree 2113′ from DER, 721′ right of centerline, 77′ AGL/176′ MSL.
Rwy 19: Posts 39′ from DER, 259′ right of centerline, 7′ AGL/126′ MSL.
Multiple trees beginning 1482′ from DER, 461′ right of centerline, up to 100′ AGL/253′ MSL.
Multiple trees beginning 1666′ from DER, 58′ left of centerline, up to 55′ AGL/257′ MSL.
Rwy 32: Windsock 39′ from DER, 341′ left of centerline, 25′ AGL/133′ MSL.
Multiple trees beginning 2419′ from DER, 167′ left of centerline, up to 50′ AGL/216′ MSL.
Multiple trees beginning 810′ from DER, 87′ right of centerline, up to 50′ AGL/205′ MSL.

NOTE: Chart not to scale.

(Continued on next page)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 1 and 32: Turn left heading 164°. Thence....

TAKE-OFF RUNWAY 14: Turn right heading 250°. Thence....

TAKE-OFF RUNWAY 19: Climb on heading 190°. Thence....

....Intercept and climb via STS R-202 to FREES INT, cross FREES INT at or above MEA for route of flight, or continue climb in FREES INT holding pattern to MEA for route of flight then via (transition) or (assigned route).

MENDOCINO TRANSITION (FREES6.ENI): From over FREES INT via PYE R-335 and ENI R-131 to ENI VORTAC.

POINT REYES TRANSITION (FREES6.PYE): From over FREES INT via PYE R-335 to PYE VORTAC.

SANTA ROSA TRANSITION (FREES6.STS): From over FREES INT via STS R-202 to STS VOR/DME.

SCAGGS ISLAND TRANSITION (FREES6.SGD): From over FREES INT via SGD R-279 to SGD VORTAC.

SW-2, 14 JAN 2010 to 11 FEB 2010

SANTA ROSA, CALIFORNIA | AL-696 (FAA) | 09351

LOC I-STS	APP CRS	Rwy Idg	5119
109.3	321°	TDZE	122
		Apt Elev	128

ILS or LOC RWY 32

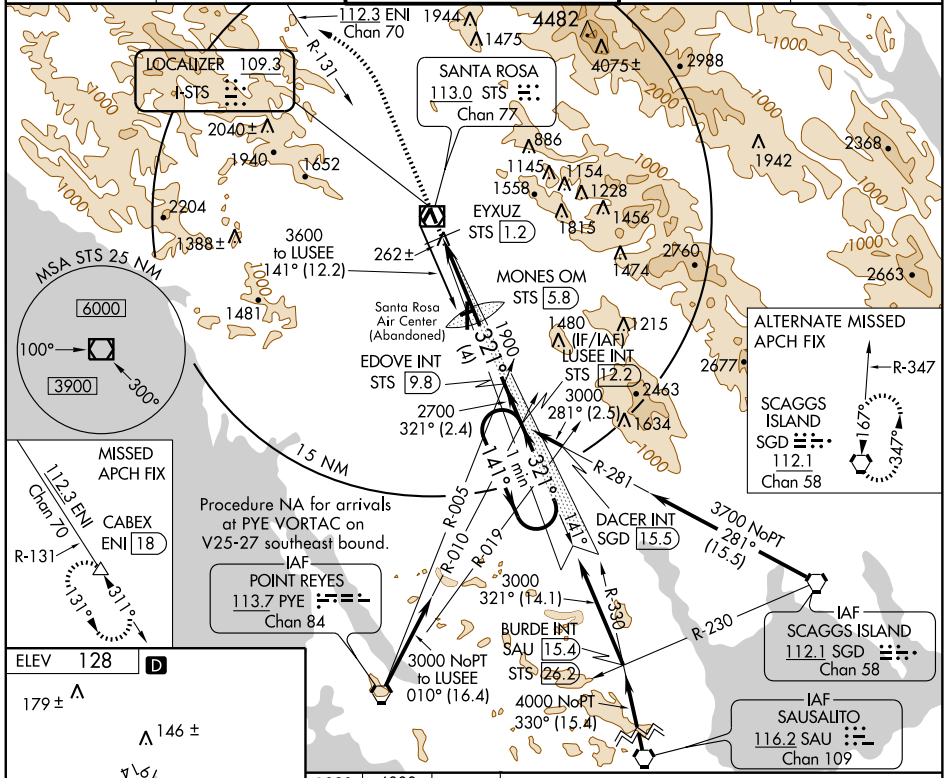
SANTA ROSA/ CHARLES M. SCHULZ-SONOMA COUNTY (STS)

DME required.
* RVR 1800 authorized with use of FD or AP or HUD to DA.

MALSR

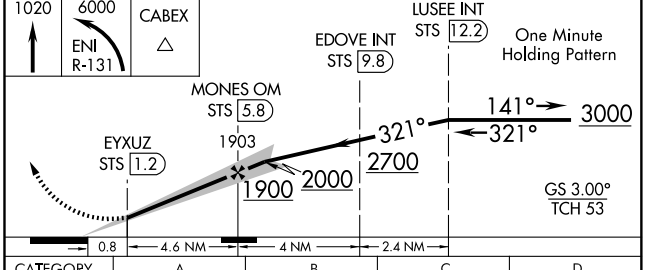
MISSED APPROACH: Climb to 1020 then climbing left turn to 6000 via ENI VORTAC R-131 to CABEX/ENI 18 DME and hold, continue climb-in-hold to 6000.

ATIS	OAKLAND CENTER	SANTA ROSA TOWER *	GND CON	UNICOM
120.55	127.8 353.5	118.5 (CTAF) L 363.0	121.9	122.95



FAF to MAP 4.6 NM

Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32



CATEGORY	A	B	C	D
S-ILS 32	*322/24		200 (200-½)	
S-LOC 32	540/24	418 (500-½)	540/40	418 (500-¾)
CIRCLING	620-1 492 (500-1)	680-1 552 (600-1)	740-1¾ 612 (700-1¾)	740-2 612 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

SANTA ROSA, CALIFORNIA

AL-696 (FAA)

APP CRS	Rwy Idg	5119
141°	TDZE	121
	Apt Elev	128

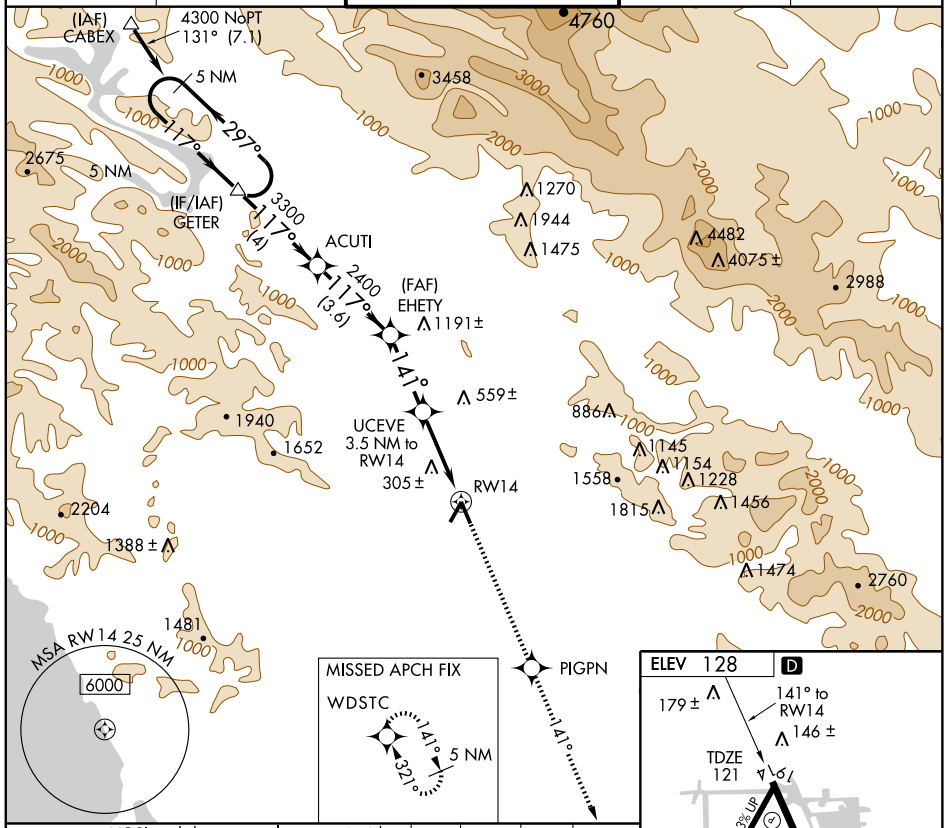
RNAV (GPS) RWY 14

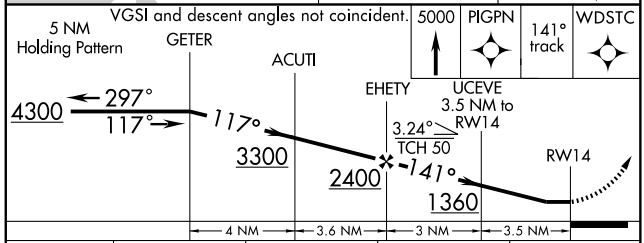
SANTA ROSA/CHARLES M. SCHULZ-SONOMA COUNTY (STS)

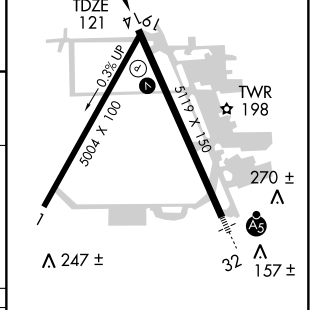
DME/DME RNP -0.3 NA.
Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 5000 direct PIGPN and via 141° track to WDSTC and hold, continue climb-in-hold to 5000.

ATIS	OAKLAND CENTER	SANTA ROSA TOWER★	GND CON	UNICOM
120.55	127.8 353.5	118.5 (CTAF) L 363.0	121.9	122.95







CATEGORY	A	B	C	D
LNAV MDA	560-1 439 (500-1)		560-1¼ 439 (500-1¼)	560-1½ 439 (500-1½)
CIRCLING	620-1 492 (500-1)	680-1 552 (600-1)	740-1¾ 612 (700-1¾)	740-2 612 (700-2)

REIL Rwy 14 L
HIRL Rwy 14-32 L

SW-2, 14 JAN 2010 to 11 FEB 2010

SANTA ROSA, CALIFORNIA

AL-696 (FAA)

WAAS CH 72611 W32A	APP CRS 321°	Rwy Idg 5119 TDZE 122 Apt Elev 128

RNAV (GPS) RWY 32

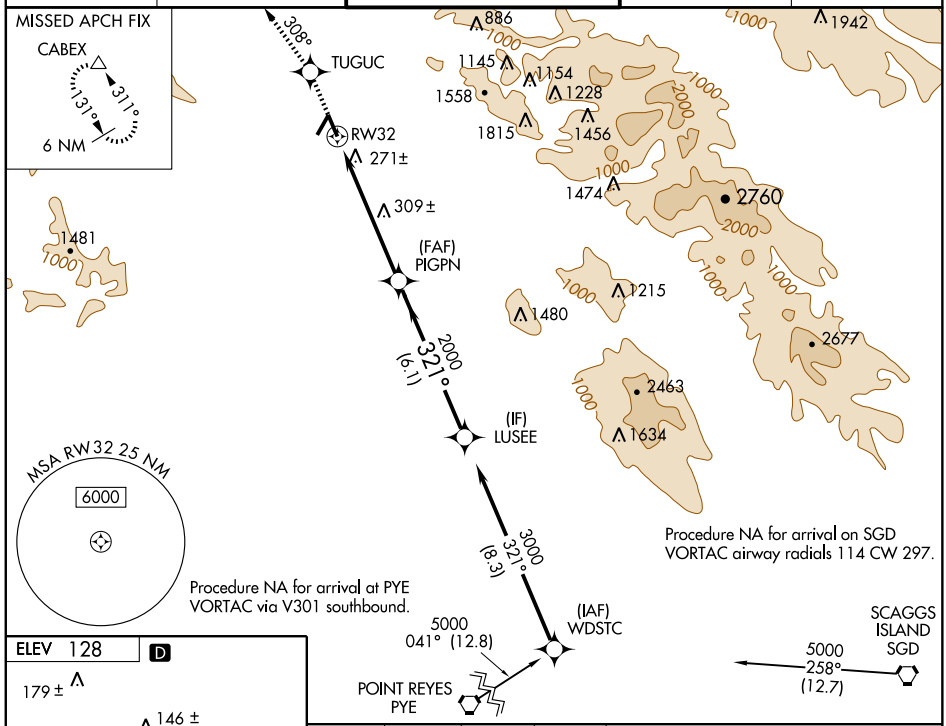
SANTA ROSA/ CHARLES M. SCHULZ-SONOMA COUNTY (STS)

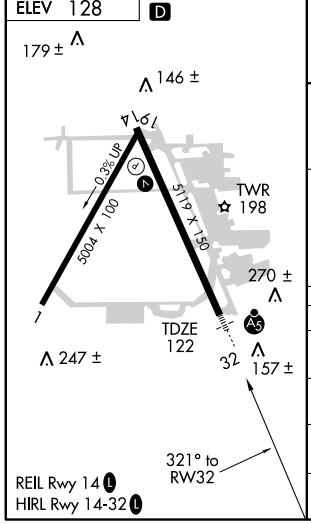
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP -0.3 NA.

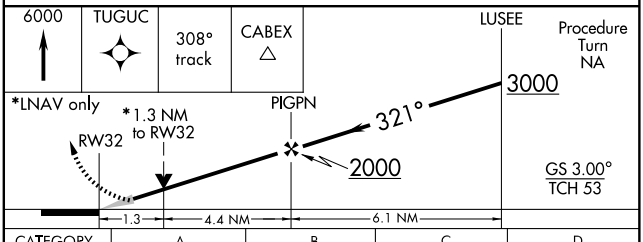
MALSR

MISSED APPROACH: Climb to 6000 direct TUGUC and via 308° track to CABEX and hold, continue climb-in-hold to 6000.

ATIS	OAKLAND CENTER	SANTA ROSA TOWER★	GND CON	UNICOM
120.55	127.8 353.5	118.5 (CTAF) L 363.0	121.9	122.95





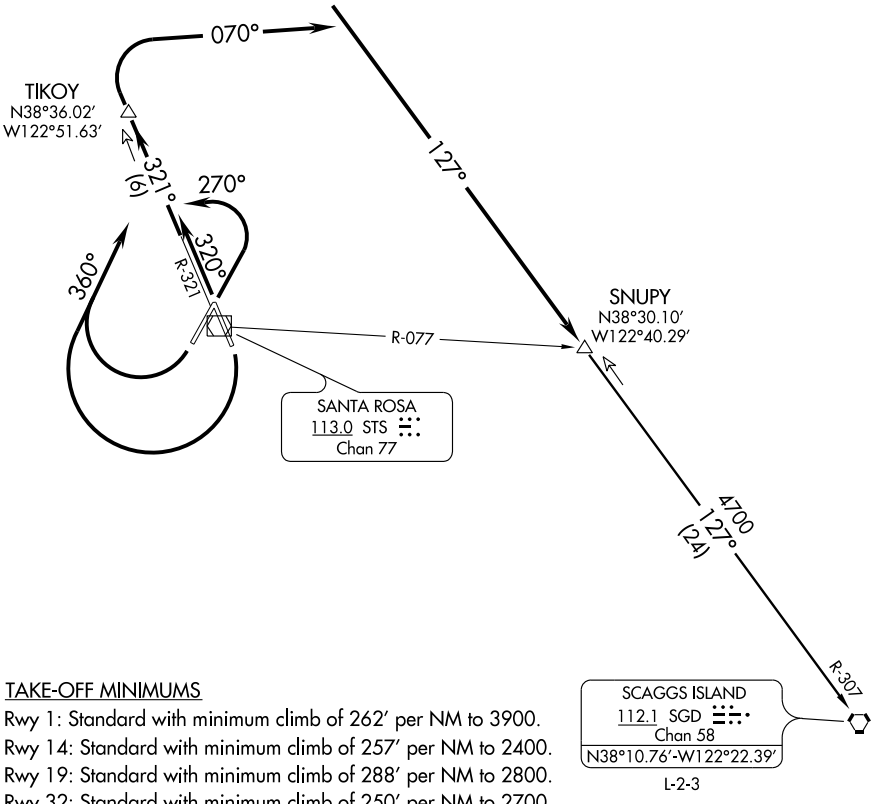


CATEGORY	A	B	C	D
LPV DA	455/40 333 (400-¾)			
LNAV/VNAV DA	556/50 434 (500-1)			
LNAV MDA	600/24 478 (500-½)		600/40 478 (500-¾)	600/50 478 (500-1)
CIRCLING	620-1 492 (500-1)	680-1 552 (600-1)	740-1¾ 612 (700-1¾)	740-2 612 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

SANTA ROSA SIX DEPARTURE

GND CON
121.9
SANTA ROSA TOWER ★
118.5 (CTAF) 363.0
OAKLAND CENTER
127.8 353.5



L-2-3

TAKE-OFF MINIMUMS

Rwy 1: Standard with minimum climb of 262′ per NM to 3900.
Rwy 14: Standard with minimum climb of 257′ per NM to 2400.
Rwy 19: Standard with minimum climb of 288′ per NM to 2800.
Rwy 32: Standard with minimum climb of 250′ per NM to 2700.

TAKE-OFF OBSTACLE NOTES

Rwy 1: Tree 739′ from DER, 525′ left of centerline, 40′ AGL/141′ MSL.
Rwy 14: Multiple trees beginning 321′ from DER, 421′ left of centerline, up to 73′ AGL/172′ MSL.
Tree 2113′ from DER, 721′ right of centerline, 77′ AGL/176′ MSL.
Rwy 19: Posts 39′ from DER, 259′ right of centerline, 7′ AGL/126′ MSL.
Multiple trees beginning 1482′ from DER, 461′ right of centerline, up to 100′ AGL/253′ MSL.
Multiple trees beginning 1666′ from DER, 58′ left of centerline, up to 55′ AGL/257′ MSL.
Rwy 32: Windsock 39′ from DER, 341′ left of centerline, 25′ AGL/133′ MSL.
Multiple trees beginning 2419′ from DER, 167′ left of centerline, up to 50′ AGL/216′ MSL.
Multiple trees beginning 810′ from DER, 87′ right of centerline, up to 50′ AGL/205′ MSL.

NOTE: DME required.

NOTE: Chart not to scale.

(Continued on next page)

SW-2, 14 JAN 2010 to 11 FEB 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 1: Turn left heading 270°. Thence....

TAKE-OFF RUNWAYS 14 and 19: Turn right heading 360°. Thence....

TAKE-OFF RUNWAY 32: Climb via heading 320°. Thence....

....Intercept and climb via STS R-321 to TIKOY INT/STS 6 DME, turn right via heading 070° to intercept and proceed via SGD R-307 to SNUPY INT/SGD 24 DME, then via (transition) or (assigned route).

SCAGGS ISLAND TRANSITION (STS6.SGD): From over SNUPY INT/SGD 24 DME via SGD R-307 to SGD VORTAC.

SW-2. 14 JAN 2010 to 11 FEB 2010

VOR/DME STS	APP CRS	Rwy Idg	5119
113.0	146°	TDZE	121
Chan 77		Apt Elev	128

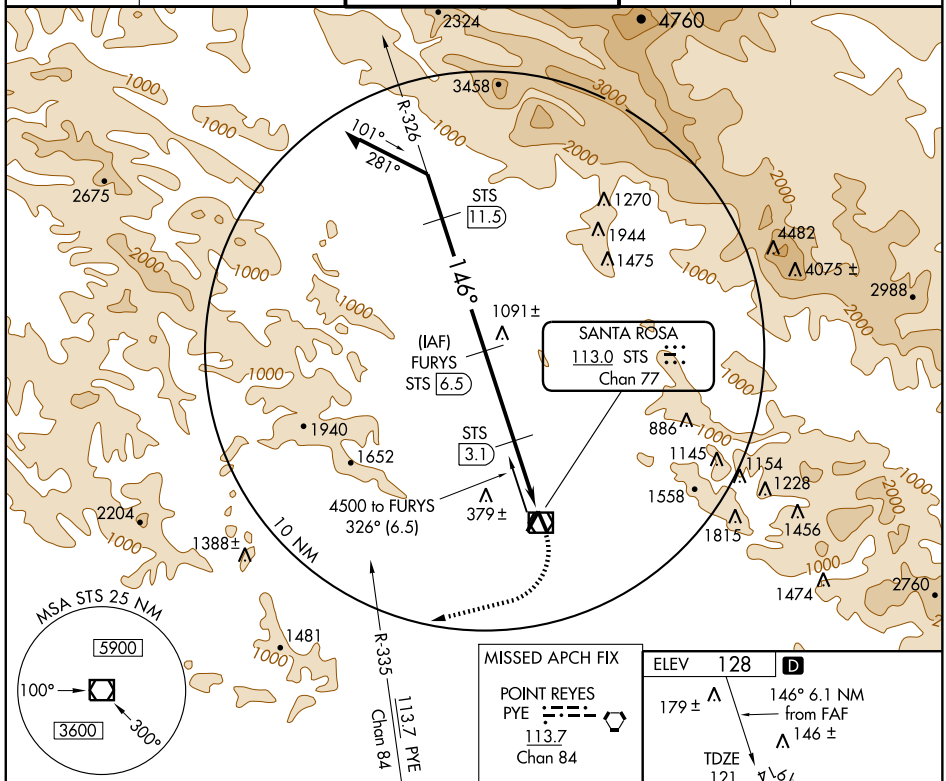
VOR/DME RWY 14

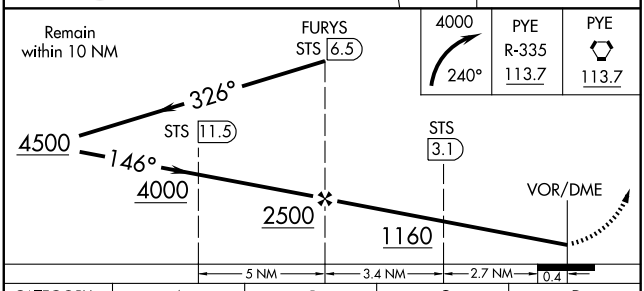
SANTA ROSA/ CHARLES M. SCHULZ-SONOMA COUNTY (STS)

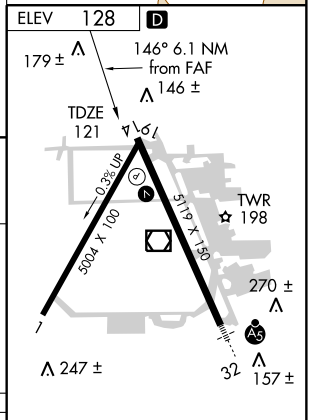
When local altimeter not received, procedure not authorized.

MISSED APPROACH: Climbing right turn to 4000 via heading 240° and PYE R-335 to PYE VORTAC.

ATIS	OAKLAND CENTER	SANTA ROSA TOWER ★	GND CON	UNICOM
120.55	127.8 353.5	118.5 (CTAF) L 363.0	121.9	122.95







CATEGORY	A	B	C	D
S-14	640-1 519 (600-1)		640-1½ 519 (600-1½)	640-1¾ 519 (600-1¾)
CIRCLING	640-1 512 (600-1)	680-1 552 (600-1)	740-1¾ 612 (700-1¾)	740-2 612 (700-2)

REIL Rwy 14 L
HIRL Rwy 14-32 L

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME STS	APP CRS	Rwy Idg	5119
113.0	321°	TDZE	119
Chan 77		Apt Elev	125

VOR RWY 32

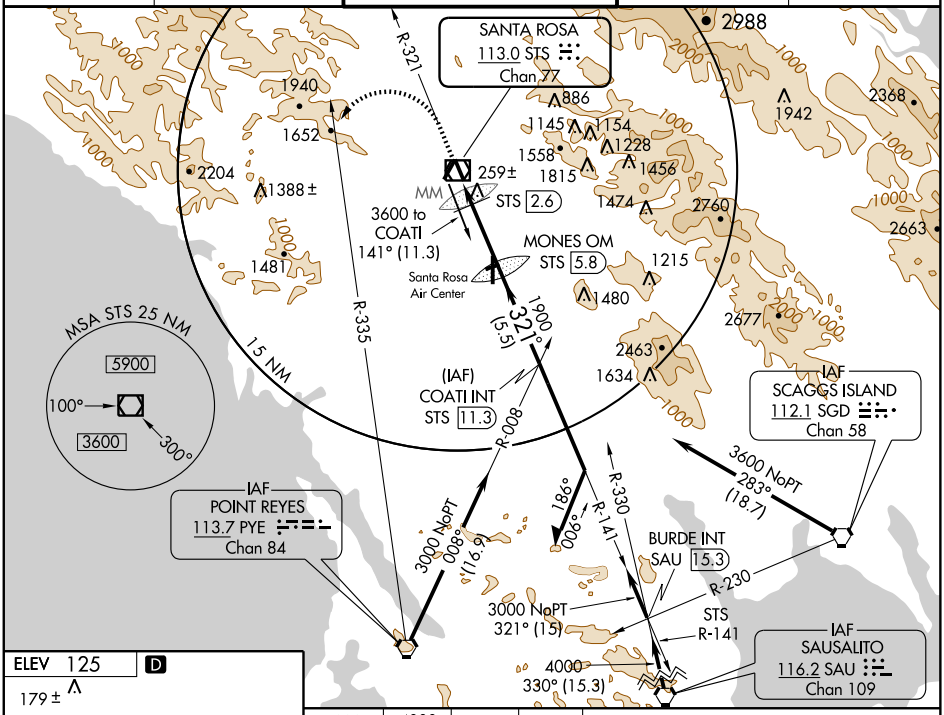
SANTA ROSA/ CHARLES M. SCHULZ-SONOMA COUNTY (STS)

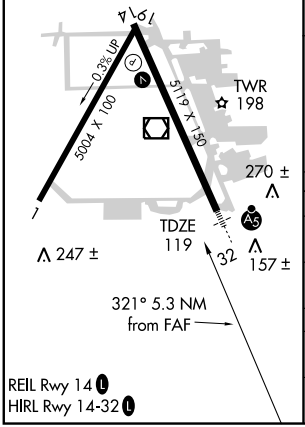
T A NA — S-32 Cat D DME minimums visibility increased to RVR 6000 for inoperative MALSR. When local altimeter not received, procedure NA.

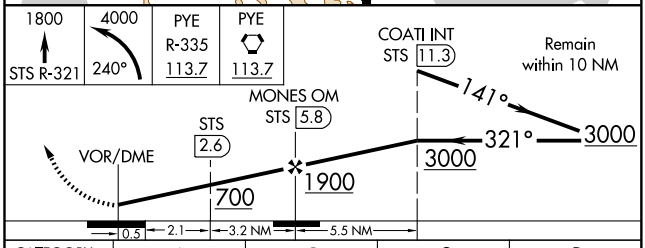
MALSR

MISSED APPROACH: Climb to 1800 via STS R-321 then climbing left turn to 4000 via heading 240° and PYE R-335 to PYE VORTAC.

ATIS	OAKLAND CENTER	SANTA ROSA TOWER★	GND CON	UNICOM
120.55	127.8 353.5	118.5 (CTAF) L 363.0	121.9	122.95







CATEGORY	A	B	C	D
S-32	700/24 581 (600-½)		700/50 581 (600-1)	700/60 581 (600-1¼)
CIRCLING	700-1 575 (600-1)		740-1¾ 615 (700-1¾)	740-2 615 (700-2)
DME MINIMUMS				
S-32	520/24 401 (400-½)		520/40 401 (400-¾)	520/50 401 (400-1)
CIRCLING	580-1 455 (500-1)	680-1 555 (600-1)	740-1¾ 615 (700-1¾)	740-2 615 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	N/A
264°	TDZE	N/A
	Apt Elev	674

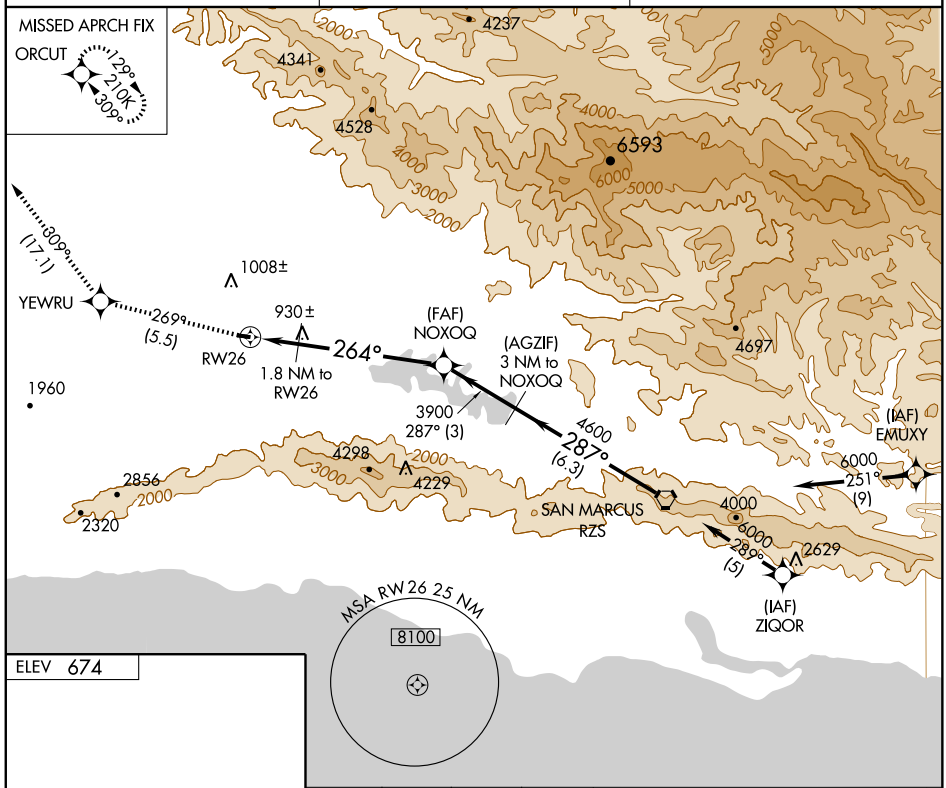
GPS-A
SANTA YNEZ (IZA)

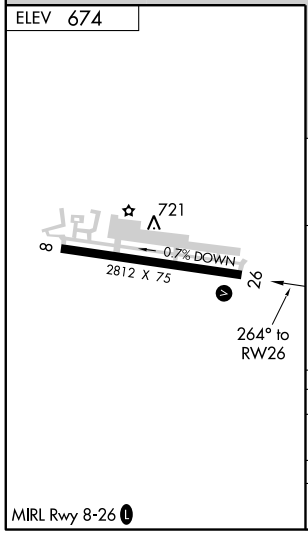
Obtain local altimeter setting on CTAF, when not received, except for operators with approved weather reporting service, use Lompoc altimeter setting.

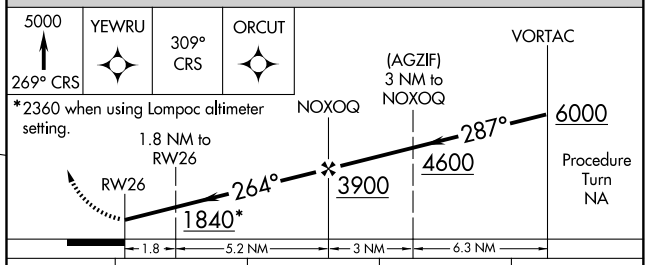
NA

MISSED APPROACH: Climb to 5000 via 269° course to YEWRU WP, then via 309° course to ORCUT WP and hold.

AWOS-3	SANTA BARBARA APP CON★	UNICOM
118.075	124.15 327.8	122.8 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	1120-1 446 (500-1)	1160-1 486 (500-1)	NA	
LOMPOC ALTIMETER SETTING MINIMUMS				
CIRCLING	1640-1¼ 966 (1000-1¼)	1680-1½ 1006 (1100-1½)	NA	

SW-3, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	2804
084°	TDZE	671
	Apt Elev	674

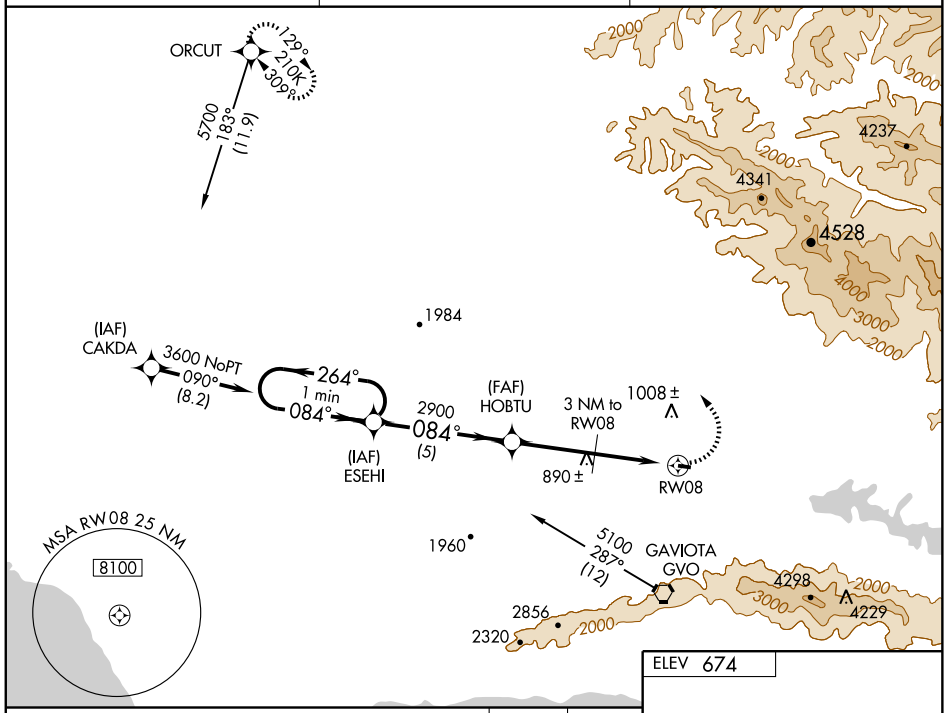
GPS RWY 8
SANTA YNEZ (IZA)

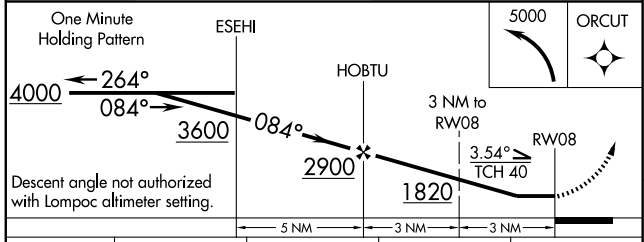
Obtain local altimeter setting on CTAF, when not received, except for operators with approved weather reporting service, use Lompoc altimeter setting.

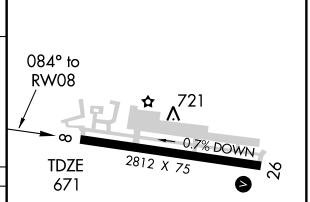
NA

MISSED APPROACH: Climbing left turn to 5000 direct ORCUT WP and hold.

AWOS-3	SANTA BARBARA APP CON ★	UNICOM
118.075	124.15 327.8	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-8	1060-1 389 (400-1)		NA	
CIRCLING	1120-1 446 (500-1)	1160-1 486 (500-1)	NA	
LOMPOC ALTIMETER SETTING MINIMUMS				
S-8	1600-1¼ 929 (1000-1¼)		NA	
CIRCLING	1640-1¼ 966 (1000-1¼)	1680-1½ 1006 (1100-1½)	NA	

MIRL Rwy 8-26 L

SW-3, 14 JAN 2010 to 11 FEB 2010

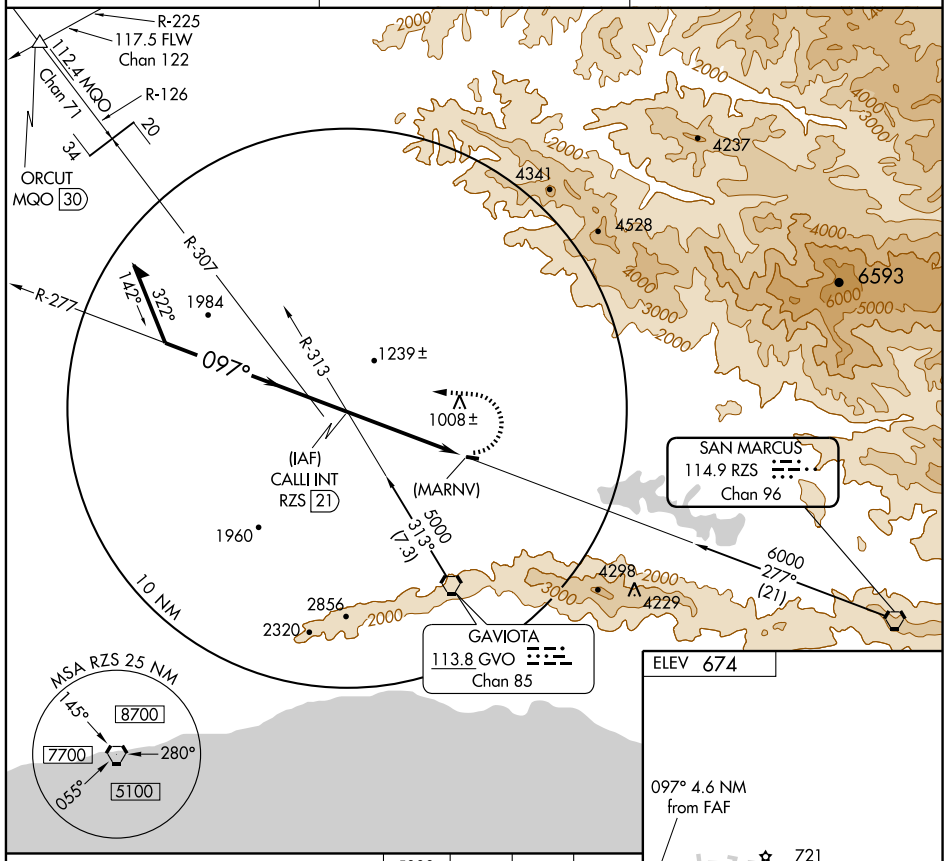
VORTAC RZS 114.9 Chan 96	APP CRS 097°	Rwy Idg N/A TDZE N/A Apt Elev 674

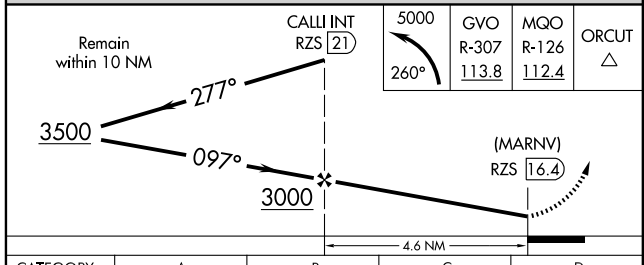
VOR or GPS-B
SANTA YNEZ (IZA)

Obtain local altimeter setting on CTAF, when not received, except for operators with approved weather reporting service, use Lompoc altimeter setting and increase all MDAs 540 feet.

MISSED APPROACH: Climbing left turn to 5000 via heading 260° and GVO R-307 and MQO R-126 to ORCUT Int.

AWOS-3	SANTA BARBARA APP CON★	UNICOM
118.075	124.15 327.8	122.8 (CTAF) L





CATEGORY	A	B	C	D
CIRCLING	1880-1¼ 1206 (1300-1¼)	1880-1½ 1206 (1300-1½)	NA	

FAF to MAP 4.6 NM

Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC EHF 115.4 Chan 101	APP CRS 269°	Rwy Idg 4501 TDZE 412 Apt Elev 422

VOR or GPS RWY 30

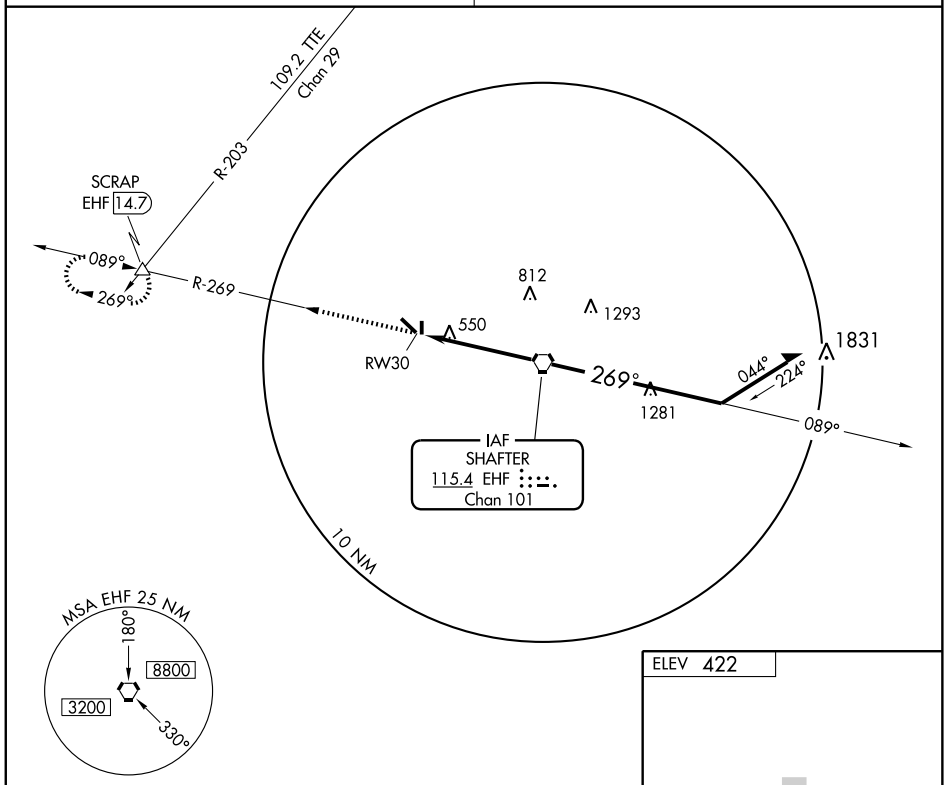
SHAFTER-MINTER FIELD (MIT)

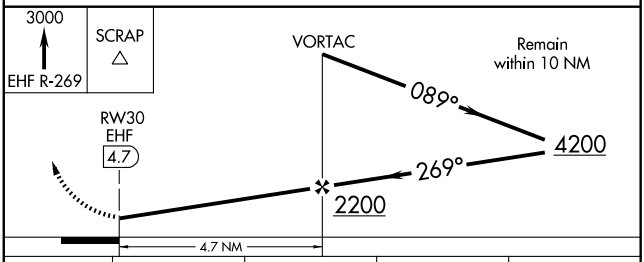
T NA

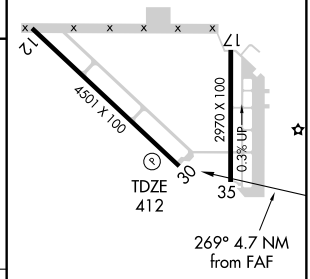
Use Bakersfield, CA altimeter setting.

MISSED APPROACH: Climb to 3000 via EHF R-269 to SCRAP INT/EHF 14.7 DME and hold.

BAKERSFIELD APP CON	CTAF
126.45 270.3	122.9 L







CATEGORY	A	B	C	D
S-30	860-1 448 (500-1)		860-1¼ 448 (500-1¼)	NA
CIRCLING	860-1 438 (500-1)	880-1 458 (500-1)	880-1½ 458 (500-1½)	NA

HIRL Rwy 12-30 L

FAF to MAP 4.7 NM					
Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

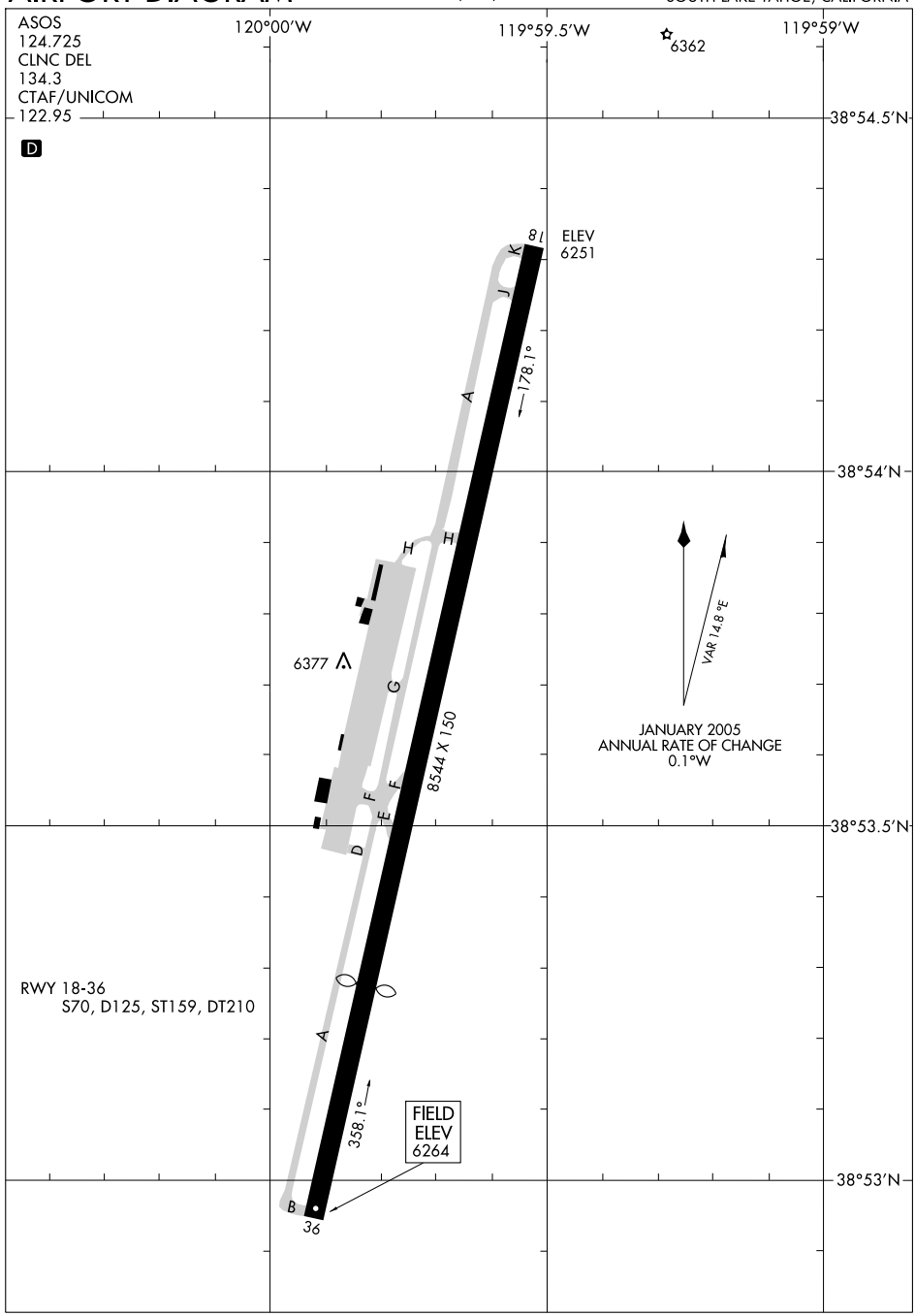
SW-3, 14 JAN 2010 to 11 FEB 2010

09239

AIRPORT DIAGRAM

AL-5416 (FAA)

SOUTH LAKE TAHOE/ LAKE TAHOE (TVL)
SOUTH LAKE TAHOE, CALIFORNIA



SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	7017
172°	TDZE	6254
	Apt Elev	6264

GPS RWY 18

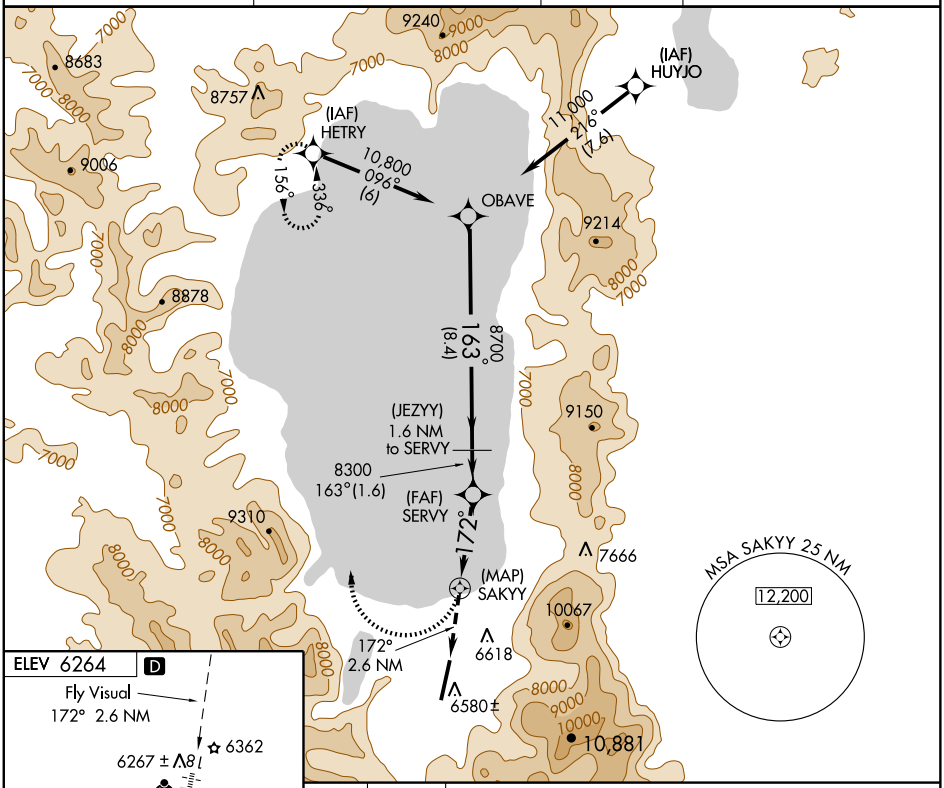
SOUTH LAKE TAHOE/ LAKE TAHOE (TVL)

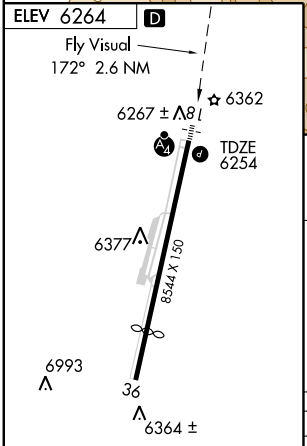
T NA — Circling not authorized at night.

MALSF

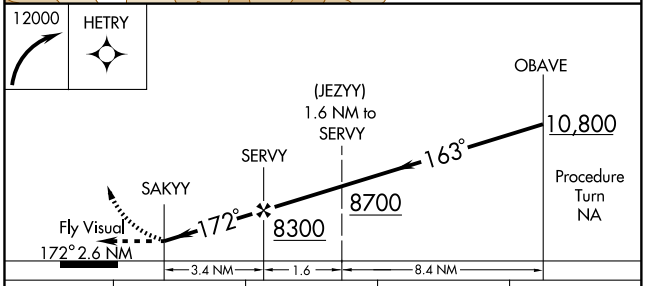
MISSED APPROACH: Climbing right turn to 12,000 direct HETRY WP and hold.

ASOS	OAKLAND CENTER	CLNC DEL	UNICOM
124.725	127.95 316.1	134.3	122.95 (CTAF) L





REIL Rwy 36
MIRL Rwy 18-36 L



CATEGORY	A	B	C	D
S-18	7160-3 906 (900-3)			8700-3 2446 (2500-3)
CIRCLING	7420-3 1156 (1200-3)	7520-3 1256 (1300-3)	7560-3 1296 (1300-3)	8700-3 2436 (2500-3)

SW-2, 14 JAN 2010 to 11 FEB 2010

LOC/DME I-TVL	APP CRS	Rwy Idg	7017
108.9	171°	TDZE	6254
Chan 26		Apt Elev	6264

LDA/DME-1 RWY 18

SOUTH LAKE TAHOE/ LAKE TAHOE (TVL)

T NA — Circling not authorized at night.

MALSF

MISSED APPROACH: Climbing right turn to 11000 via heading 348° and SWR R-102 to SWR VOR/DME and hold.

ASOS	OAKLAND CENTER	CLNC DEL	UNICOM
124.725	127.95 316.1	134.3	122.95 (CTAF) L

IAF SQUAW VALLEY 113.2 SWR Chan 79

IAF MUSTANG 117.9 FMG Chan 126

MSA SWR 25 NM 11900

KINGS INT I-TVL 20.4

SHOLE I-TVL 9.7

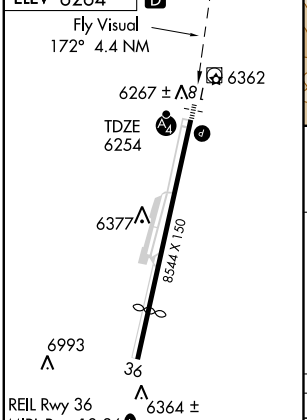
I-TVL 12.4

I-TVL 7.4

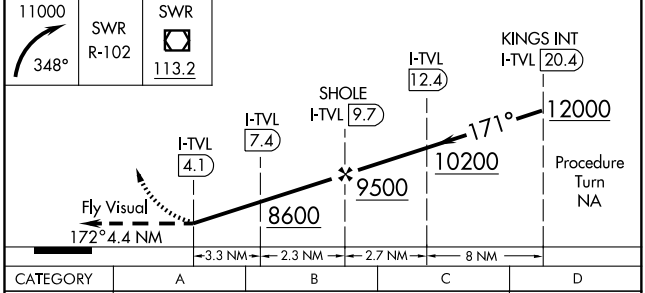
I-TVL 4.1

LOCALIZER 108.9 I-TVL Chan 26

10 NM



Knots	60	90	120	150	180
Min:Sec					



CATEGORY	A	B	C	D
S-18	7280-5 1026 (1100-5)			8540-5 2286 (2300-5)
CIRCLING	7420-5 1156 (1200-5)	7520-5 1256 (1300-5)	7540-5 1276 (1300-5)	8540-5 2276 (2300-5)

SOUTH LAKE TAHOE, CALIFORNIA AL-5416 (FAA)

LOC/DME I-TVL	APP CRS	Rwy Idg	7017
108.9	171°	TDZE	6254
Chan 26		Apt Elev	6264

LDA/DME-2 RWY 18

SOUTH LAKE TAHOE/ LAKE TAHOE (TVL)

NA — Circling not authorized at night.

MALSF

MISSED APPROACH: Climbing right turn to 12000 via heading 035° and I-TVL north course to SHOLE/ 9.7 DME and hold.

ASOS	OAKLAND CENTER	CLNC DEL	UNICOM
124.725	127.95 316.1	134.3	122.95 (CTAF)

SQUAW VALLEY
113.2 SWR
Chan 79

IAF
MUSTANG
117.9 FMG
Chan 126

FMG 19
12000
201° (19)
12000
201° (2.3)

KINGS INT
I-TVL 20.4

R-060
R-201
171°
10200
(8)
351°

I-TVL 12.4
9500
171° (2.7)

SHOLE
I-TVL 9.7

I-TVL 7.4

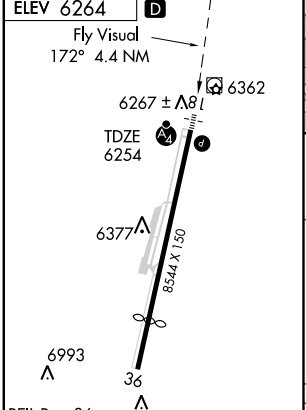
I-TVL 4.1

172°
4.4 NM

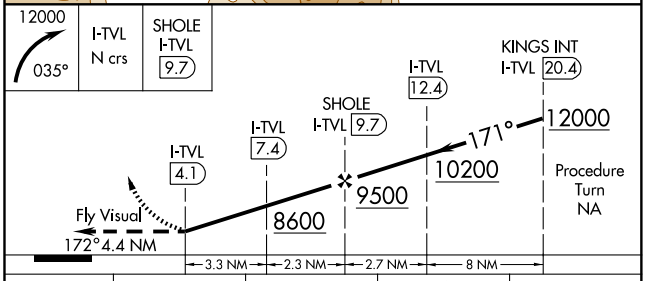
10 NM

LOCALIZER 108.9
I-TVL
Chan 26

9789 9240 8683 8757 9006 8878 9214 9150 7933 9310 7666 6580± 6618 10067



Knots	60	90	120	150	180
Min:Sec					



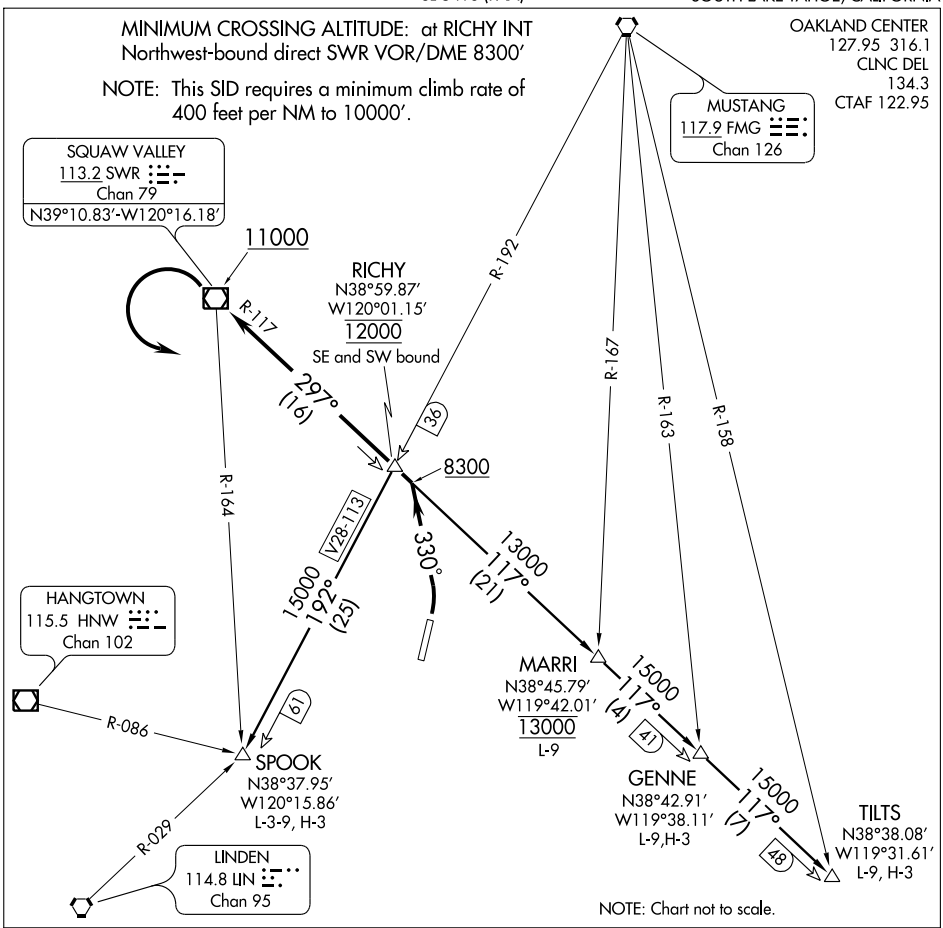
CATEGORY	A	B	C	D
S-18	8380-5 2126 (2200-5)			8540-5 2286 (2300-5)
CIRCLING	8380-5 2116 (2200-5)			8540-5 2276 (2300-5)

SW-2, 14 JAN 2010 to 11 FEB 2010

RICHY FIVE DEPARTURE

SL-5416 (FAA)

SOUTH LAKE TAHOE/ LAKE TAHOE (TVL)
SOUTH LAKE TAHOE, CALIFORNIA



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 36: Turn left heading 330°. Intercept SWR R-117 at or above 8300′, continue climb northwest bound on SWR R-117 to SWR VOR/DME. Cross SWR VOR/DME at or above 11000′. Aircraft cleared via a transition, reverse course to the left after crossing the SWR VOR/DME, and proceed to RICHY INT via SWR R-117. Cross RICHY INT at 12000′ southeast and southwest bound, thence (via transition).

GENNE TRANSITION (RICHY5.GENNE): From over RICHY INT via SWR R-117 to GENNE INT. Cross MARRI INT at 13000′. Expect further clearance to filed altitude after MARRI INT.

MARRI TRANSITION (RICHY5.MARRI): From over RICHY INT via SWR R-117 to MARRI INT Cross MARRI INT at 13000′. Expect further clearance to filed altitude after MARRI INT.

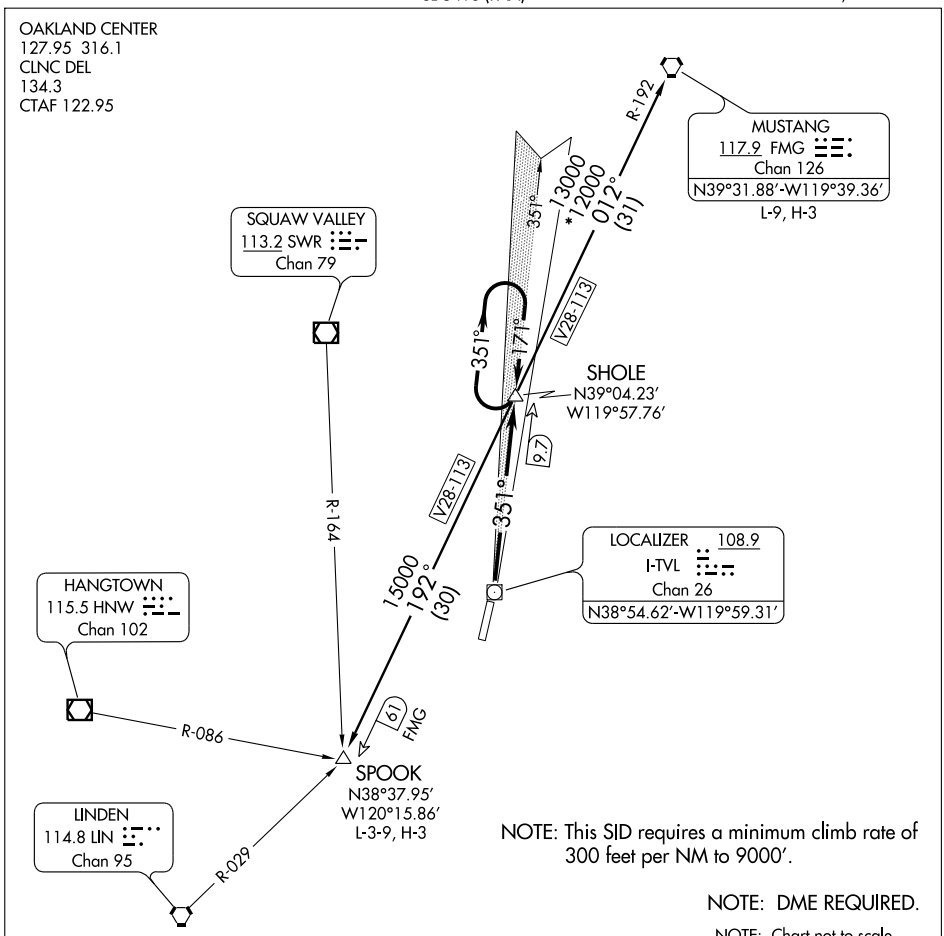
SPOOK TRANSITION (RICHY5.SPOOK): From over RICHY INT via FMG R-192 to SPOOK INT. Expect further clearance to filed altitude after SPOOK INT.

TILTS TRANSITION (RICHY5.TILTS): From over RICHY INT via SWR R-117 to TILTS INT. Cross MARRI INT at 13000′. Expect further clearance to filed altitude after MARRI INT.

SW-2, 14 JAN 2010 to 11 FEB 2010

SHOLE ONE DEPARTURE

SL-5416 (FAA)



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 18: Not authorized.

TAKE-OFF RUNWAY 36: Climb northbound via I-TVL localizer north course to SHOLE I-TVL 9.7 DME Fix. Continue climb in SHOLE 9.7 DME holding pattern, north 4 NM leg, right turns, 171° inbound I-TVL localizer until reaching 13000', thence via (transition) or (assigned route).

MUSTANG TRANSITION (SHOLE1.FMG): From over SHOLE DME via FMG R-192 to FMG VORTAC.

SPOOK TRANSITION (SHOLE1.SPOOK): From over SHOLE DME via FMG R-192 to SPOOK INT.

VOR/DME SWR	APP CRS	Rwy Idg	N/A
113.2	117°	TDZE	N/A
Chan 79		Apt Elev	6264

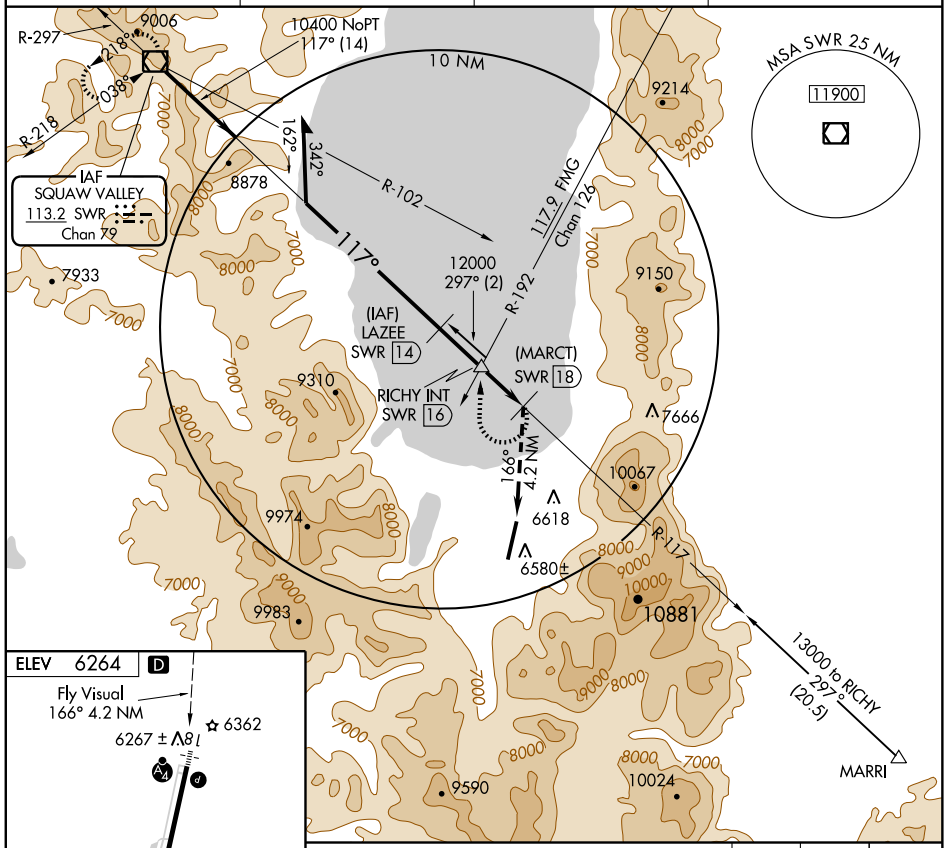
VOR/DME or GPS-A

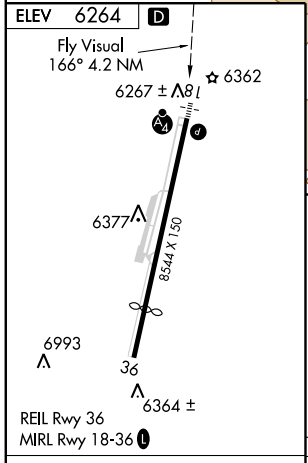
SOUTH LAKE TAHOE/ LAKE TAHOE (TVL)

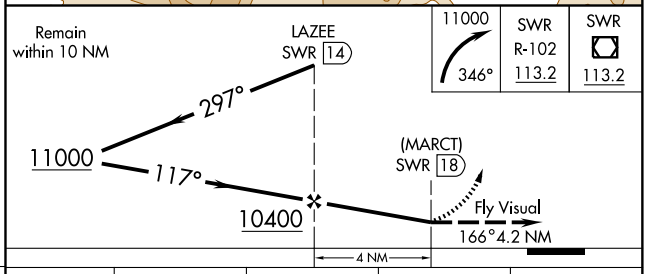
* Circling to Rwy 36 not authorized at night.
Air carrier landing visibility reduction for local conditions not authorized.

MISSED APPROACH: Climbing right turn to 11000 via heading 346° and SWR R-102 to SWR VOR/DME and hold.

ASOS	OAKLAND CENTER	CLNC DEL	UNICOM
124.725	127.95 316.1	134.3	122.95 (CTAF) L

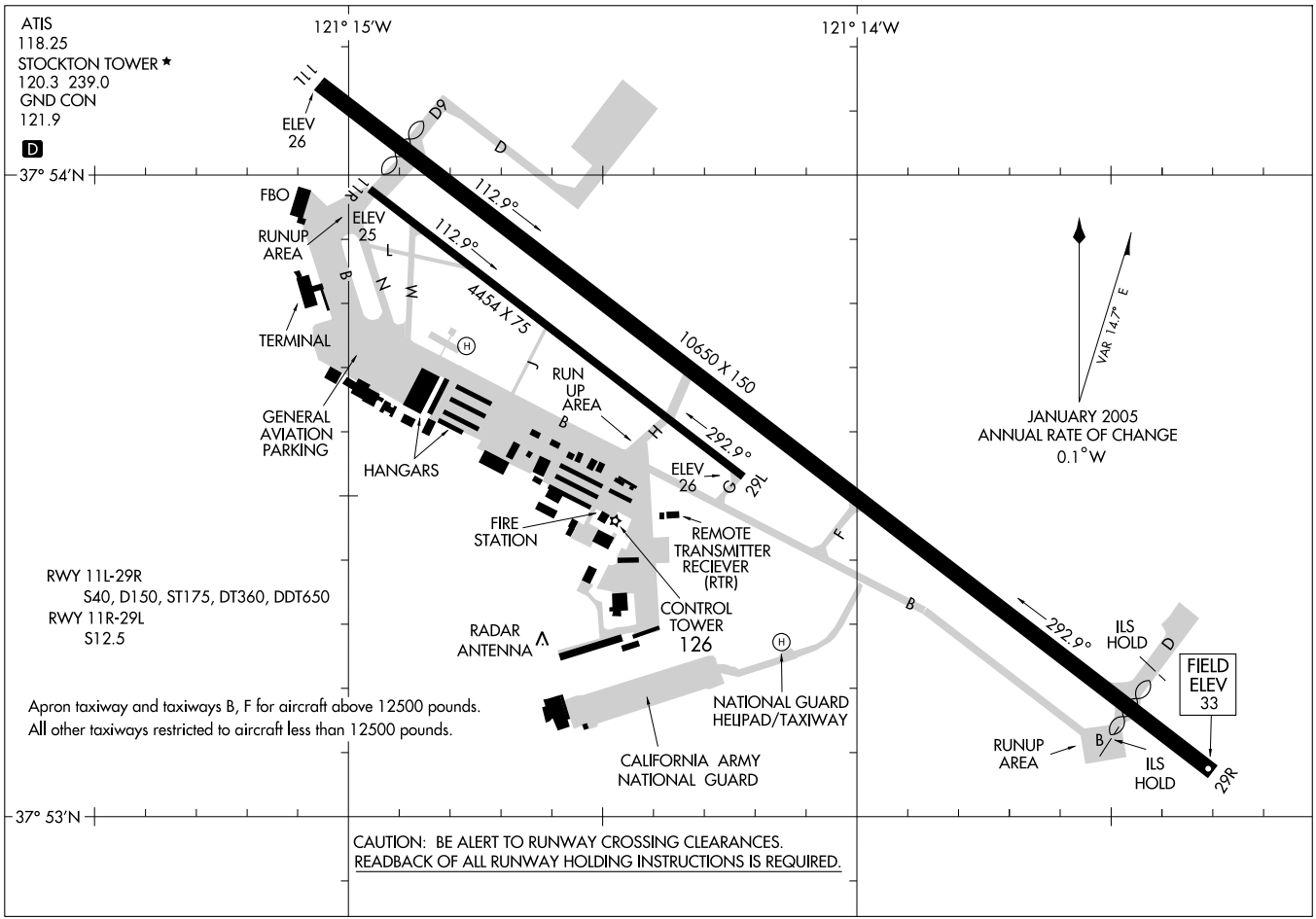






Knots	60	90	120	150	180
Min:Sec					

CATEGORY	A	B	C	D
CIRCLING*	8800-5	2536 (2600-5)		



AIRPORT DIAGRAM

AL-407 (FAA)

STOCKTON METROPOLITAN (SCK)

STOCKTON, CALIFORNIA

LOC I-SCK	APP CRS	Rwy Idg	8701
109.1	291°	TDZE	30
		Apt Elev	30

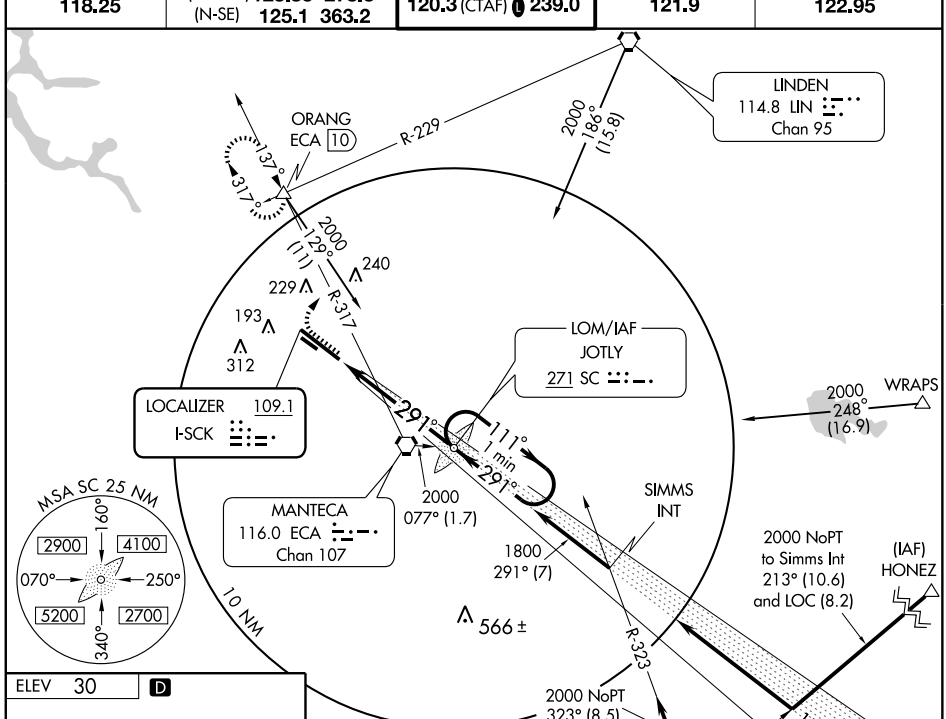
ILS or LOC RWY 29R
STOCKTON METROPOLITAN (SCK)

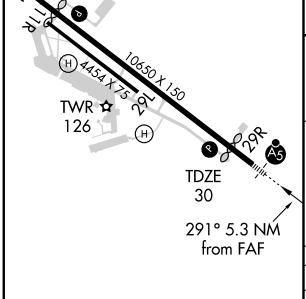
For inoperative MALSR, increase S-LOC 29R Cat D visibility to 1 mile.

MALSR

MISSED APPROACH: Climb to 500 then climbing right turn to 2000 via heading 010° and ECA R-317 to ORANG Int and hold.

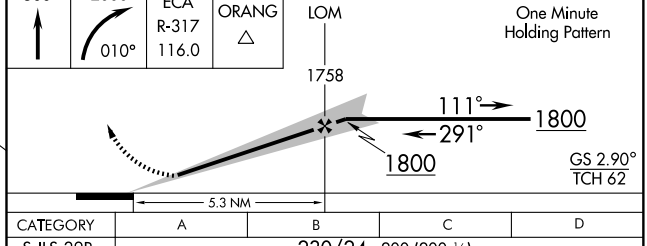
ATIS	NORCAL APP CON	STOCKTON TOWER*	GND CON	UNICOM
118.25	(SE-NW) 123.85 278.3 (N-SE) 125.1 363.2	120.3 (CTAF) L 239.0	121.9	122.95





HIRL Rwy 11L-29R L

FAF to MAP 5.3 NM					
Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46



CATEGORY	A	B	C	D
S-ILS 29R	230/24 200 (200-½)			
S-LOC 29R	360/24 330 (400-½)			360/40 330 (400-¾)
CIRCLING	500-1 470 (500-1)	540-1 510 (600-1)	540-1½ 510 (600-1½)	700-2 670 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

LOM SC	APP CRS	Rwy Idg	8701
271	291°	TDZE	30
		Apt Elev	30

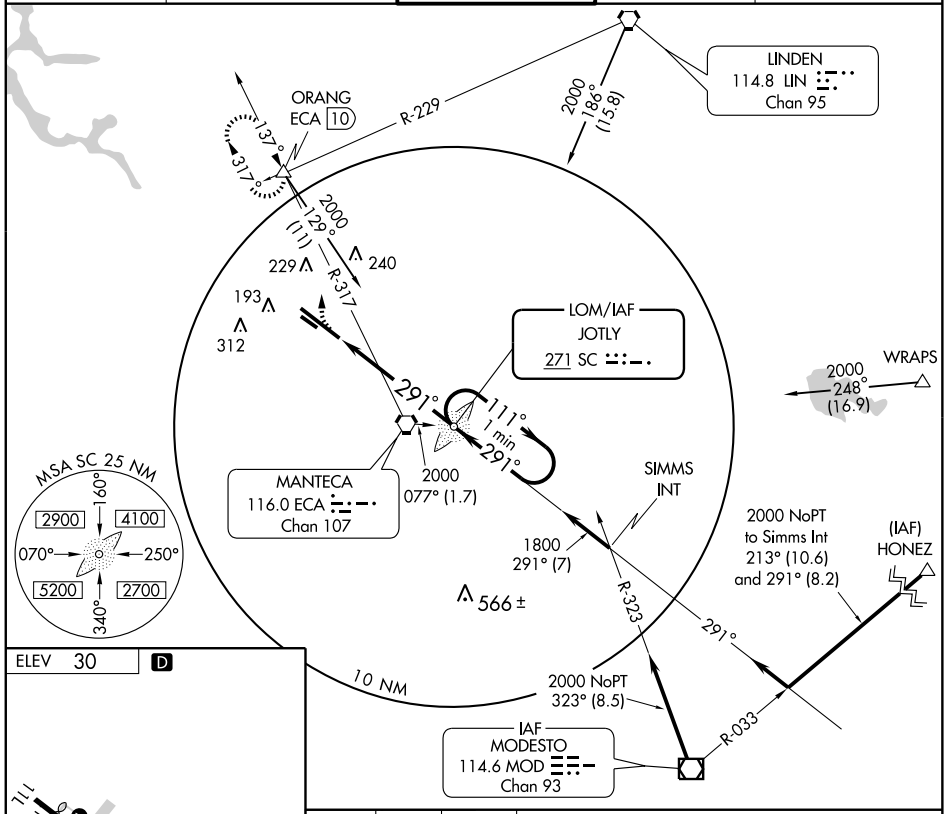
NDB RWY 29R

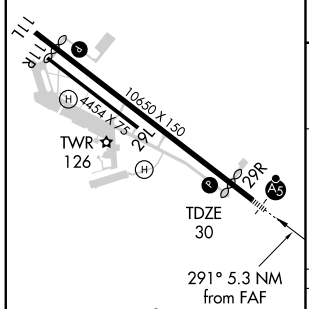
STOCKTON METROPOLITAN (SCK)

MALSR

MISSED APPROACH: Climbing right turn to 2000 via heading 010° and ECA R-317 to ORANG Int and hold.

ATIS	NORCAL APP CON	STOCKTON TOWER ★	GND CON	UNICOM
118.25	(SE-NW) 123.85 278.3 (N-SE) 125.1 363.2	120.3 (CTAF) L 239.0	121.9	122.95

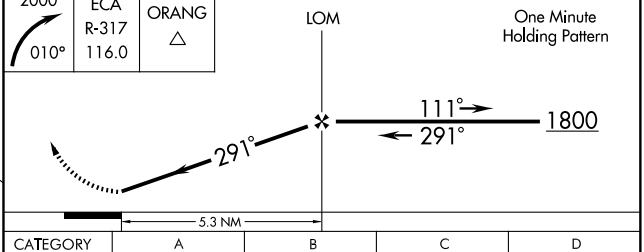




HIRL Rwy 11L-29R L

FAF to MAP 5.3 NM					
Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46

2000 010°	ECA R-317 116.0	ORANG △



CATEGORY	A	B	C	D
S-29R	520/40 490 (500-¾)			520/60 490 (500-1¼)
CIRCLING	520-1 490 (500-1)	540-1 510 (600-1)	540-1½ 510 (600-1½)	700-2 670 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS		
CH 72910	114°	Rwy Idg	8690
W11A		TDZE	29
		Apt Elev	33

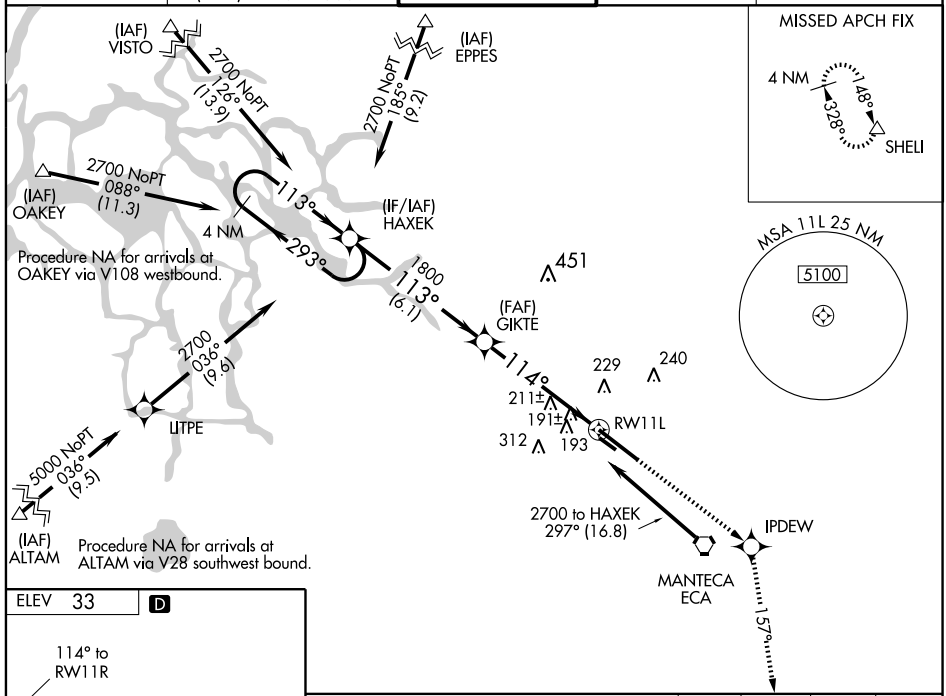
RNAV (GPS) RWY 11L

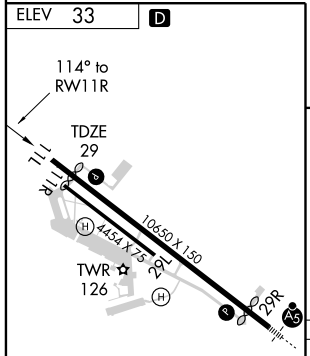
STOCKTON METROPOLITAN (SCK)

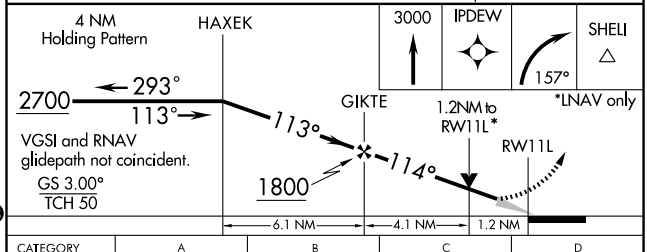
Baro-VNAV NA when using Modesto altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME-RNP-0.3 NA. When local altimeter setting not received, use Modesto altimeter setting: increase all DA 58 feet and LPV and LNAV/VNAV all Cats visibility ¼ mile; increase all MDA 60 feet and LNAV Cat C and circling Cat D visibility ¼ mile. VDP NA with Modesto altimeter setting.

MISSED APPROACH: Climb to 3000 direct IPDEW and right turn via 157° track to SHELI and hold.

ATIS	NORCAL APP CON	STOCKTON TOWER★	GND CON	UNICOM
118.25	(SE-NW) 123.85 278.3 (N-SE) 125.1 363.2	120.3 (CTAF) L 239.0	121.9	122.95







CATEGORY	A	B	C	D
LPV DA	279- ¾	250 (300-¾)		
LNAV/VNAV DA	512-1 ¾	483 (500-1¾)		
LNAV MDA	480-1	451 (500-1)	480-1¼ 451 (500-1¼)	480-1½ 451 (500-1½)
CIRCLING	500-1 467 (500-1)	540-1 507 (600-1)	540-1½ 507 (600-1½)	680-2 647 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS		
CH 87010	294°	Rwy Idg	8701
W29A		TDZE	32
		Apt Elev	33

RNAV (GPS) RWY 29R

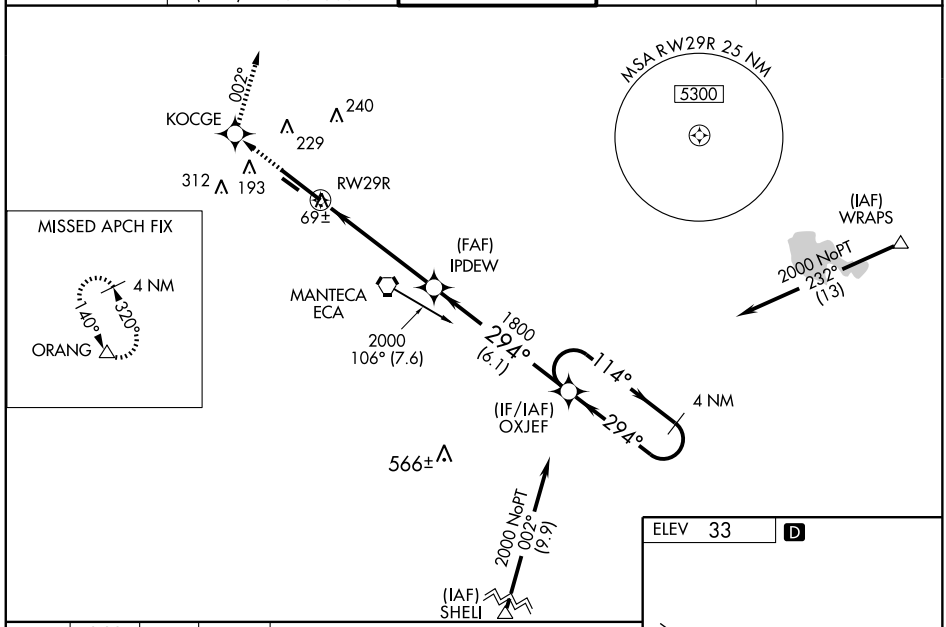
STOCKTON METROPOLITAN (SCK)

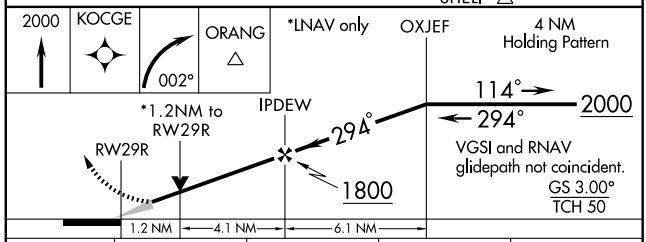
T For inoperative MALSR, increase LNAV/VNAV Cat D visibility to RVR 5000.
A Baro-VNAV NA when using Modesto altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Modesto altimeter setting: increase all DA 58 feet and LNAV/VNAV Cats A/B/C visibility ¼ mile; increase all MDA 60 feet and circling Cat D visibility ¼ mile. For inoperative MALSR, when using Modesto altimeter setting, increase LPV all Cats visibility to 1 mile.
VDP NA with Modesto altimeter setting.

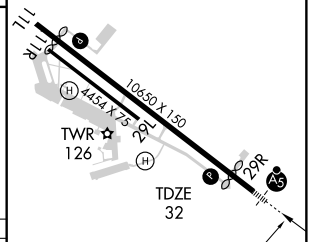
MALSR

MISSED APPROACH: Climb to 2000 direct KOCGE and right turn via 002° track to ORANG and hold, continue climb-in-hold to 2000.

ATIS	NORCAL APP CON	STOCKTON TOWER*	GND CON	UNICOM
118.25	(SE-NW) 123.85 278.3 (N-SE) 125.1 363.2	120.3 (CTAF) L 239.0	121.9	122.95







CATEGORY	A	B	C	D
LPV DA	282/24 250 (300-½)			
LNAV/VNAV DA	327/24 295 (300-½)			327/40 295 (300-¾)
LNAV MDA	460/24 428 (500-½)		460/40 428 (500-¾)	460/50 428 (500-1)
CIRCLING	500-1 467 (500-1)	540-1 507 (600-1)	540-1½ 507 (600-1½)	680-2 647 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC ECA 116.0 Chan 107	APP CRS 304°	Rwy Idg 8701 TDZE 30 Apt Elev 30

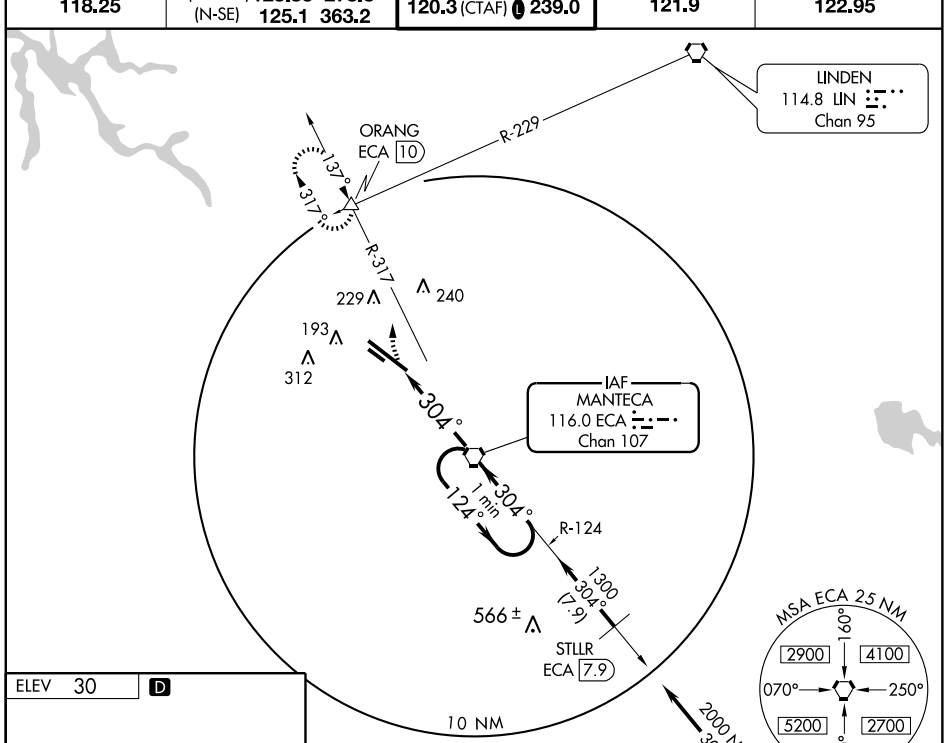
VOR RWY 29R
STOCKTON METROPOLITAN (SCK)

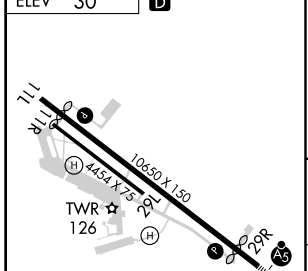
Inoperative table does not apply.

MALSR

MISSED APPROACH: Climbing right turn to 2000 via heading 010° and ECA R-317 to ORANG Int and hold.

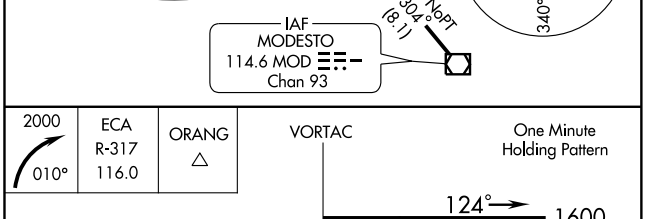
ATIS	NORCAL APP CON	STOCKTON TOWER ★	GND CON	UNICOM
118.25	(SE-NW) 123.85 278.3 (N-SE) 125.1 363.2	120.3 (CTAF) L 239.0	121.9	122.95





HIRL Rwy 11L-29R L

FAF to MAP 4 NM					
Knots	60	90	120	150	180
Min:Sec	4:00	2:40	2:00	1:36	1:20

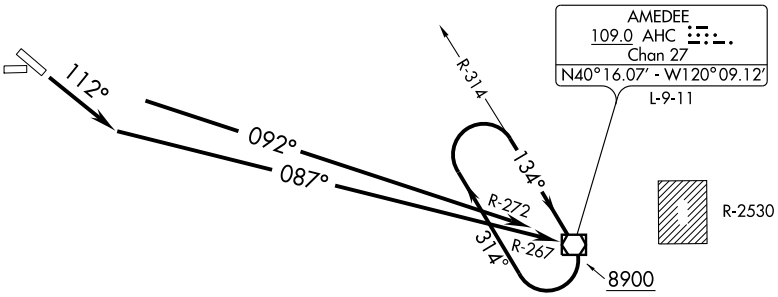


CATEGORY	A	B	C	D
S-29R	460/50	430 (500-1)	460/60 430 (500-1½)	460-1½ 430 (500-1½)
CIRCLING	500-1 470 (500-1)	540-1 510 (600-1)	540-1½ 510 (600-1¼)	700-2 670 (700-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

AMEDEE ONE DEPARTURE (OBSTACLE)

OAKLAND CENTER
128.8 285.5
CTAF 122.8



TAKE-OFF MINIMUMS

Rwy 7, 25, 29: NA- obstacles.

Rwy 11: Standard with minimum climb of 410′ per NM to 6000 or 1900-2½ for climb in visual conditions.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 11: Climb via 112° heading and AHC R-267 to AHC VOR/DME, Thence....
Or climb in visual conditions to cross Susanville Muni Airport eastbound at or above 6000, then via AHC R-272 to AHC VOR/DME, Thence....

....cross AHC VOR/DME at or above 8900′. Climb in AHC holding pattern (hold NW, right turns, 134° inbound) to depart AHC VOR/DME at or above 14000 before proceeding on course.

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	N/A
142°	TDZE	N/A
	Apt Elev	4149

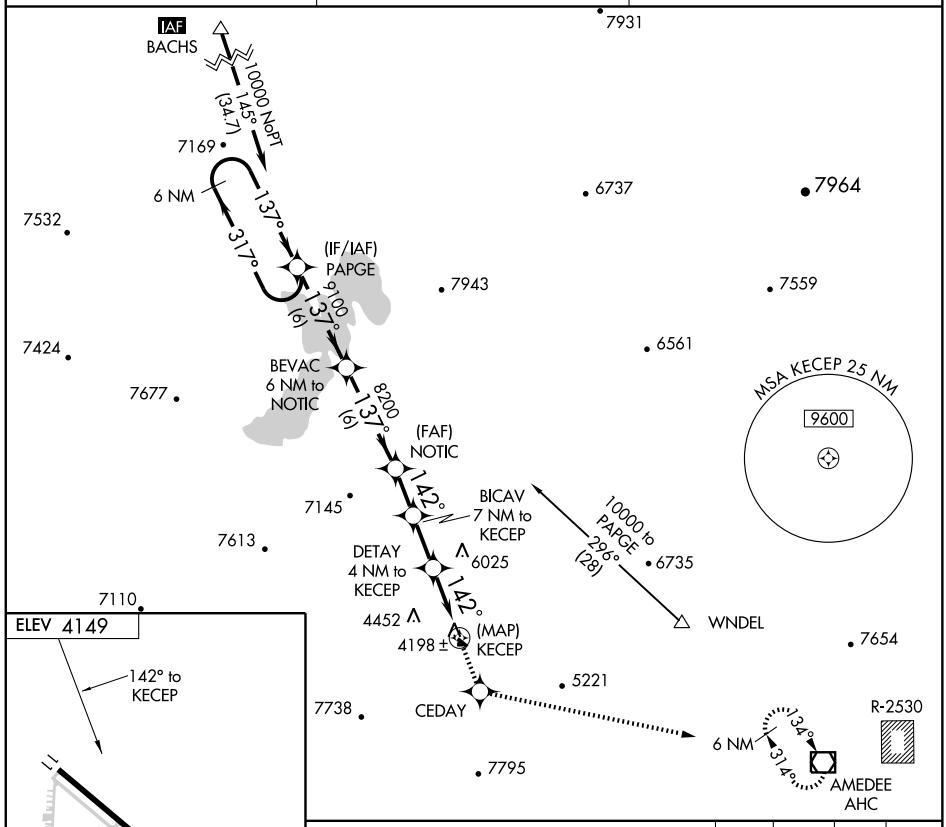
RNAV (GPS)-A
SUSANVILLE MUNI (SVE)

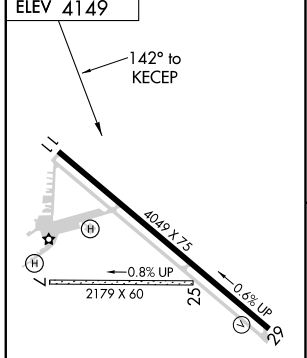
▼ ▲ NA

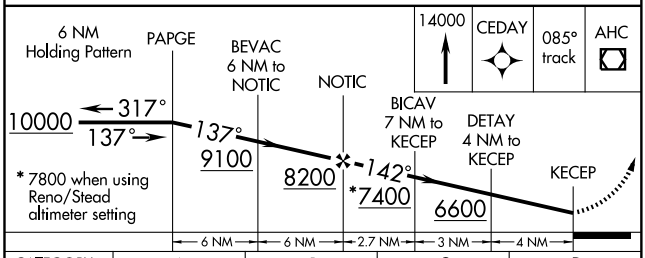
If local altimeter setting not received, use Reno/Stead altimeter setting and increase all MDAs 720 feet.
Circling to Rwy 7/25 NA.
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.
IAF ARM APPROACH MODE PRIOR TO IAF.

MISSED APPROACH: Climb to 14000 direct CEDAY WP and via 085° track to AHC VOR/DME and hold.

AWOS-3	OAKLAND CENTER	UNICOM
133.8	128.8 285.5	122.8 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	5040-1¼ 891 (900-1¼)		5040-2¾ 891 (900-2¾)	5040-3 891 (900-3)

MIRL Rwy 11-29 L

SW-2, 14 JAN 2010 to 11 FEB 2010

SUSANVILLE, CALIFORNIA AL-9479 (FAA)

APP CRS		
297°	Rwy Idg	4049
	TDZE	4145
	Apt Elev	4149

RNAV (GPS) RWY 29

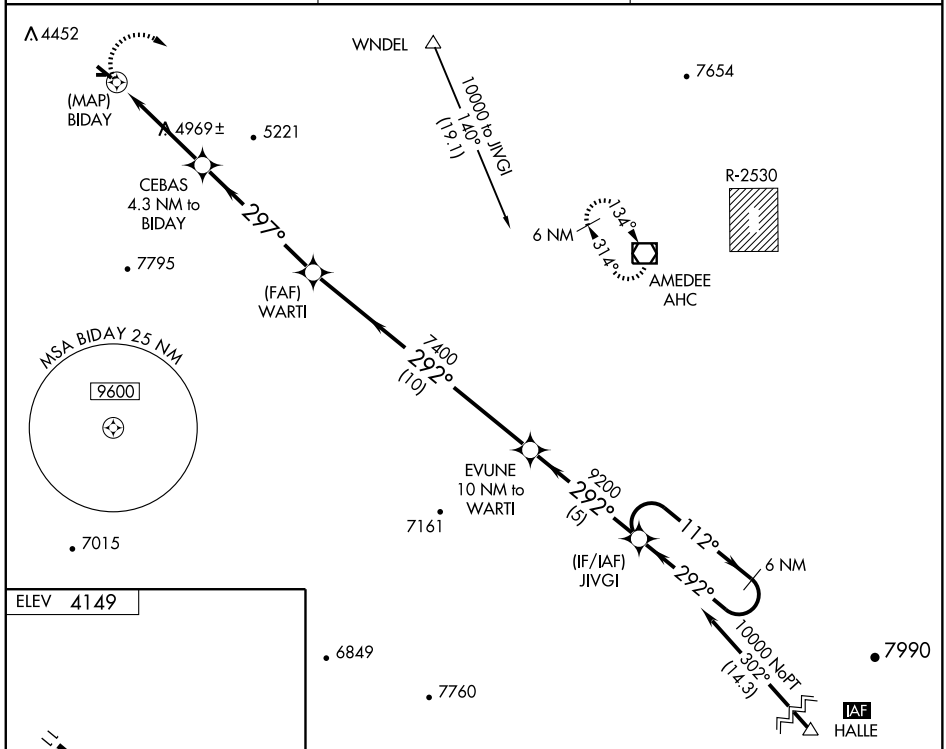
SUSANVILLE MUNI (SVE)

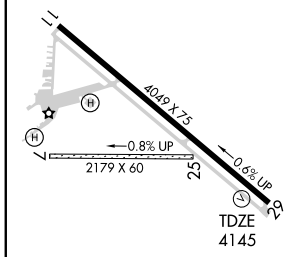
▼ ▲ NA

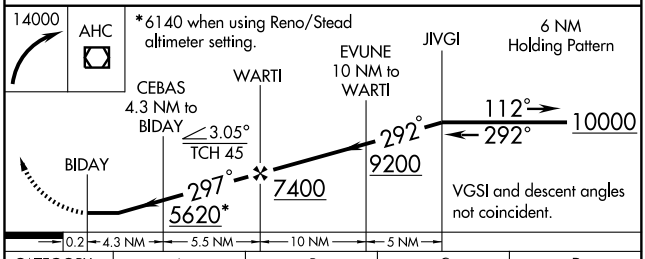
If local altimeter setting not received, use Reno/Stead altimeter setting and increase all MDAs 720 feet.
Straight-in minimums NA when using Reno/Stead altimeter setting.
Circling to Rwy 7/25 NA.
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.
IAF ARM APPROACH MODE PRIOR TO IAF.

MISSED APPROACH: Climbing right turn to 14000 direct AHC VOR/DME and hold.

AWOS-3	OAKLAND CENTER	UNICOM
133.8	128.8 285.5	122.8 (CTAF) L



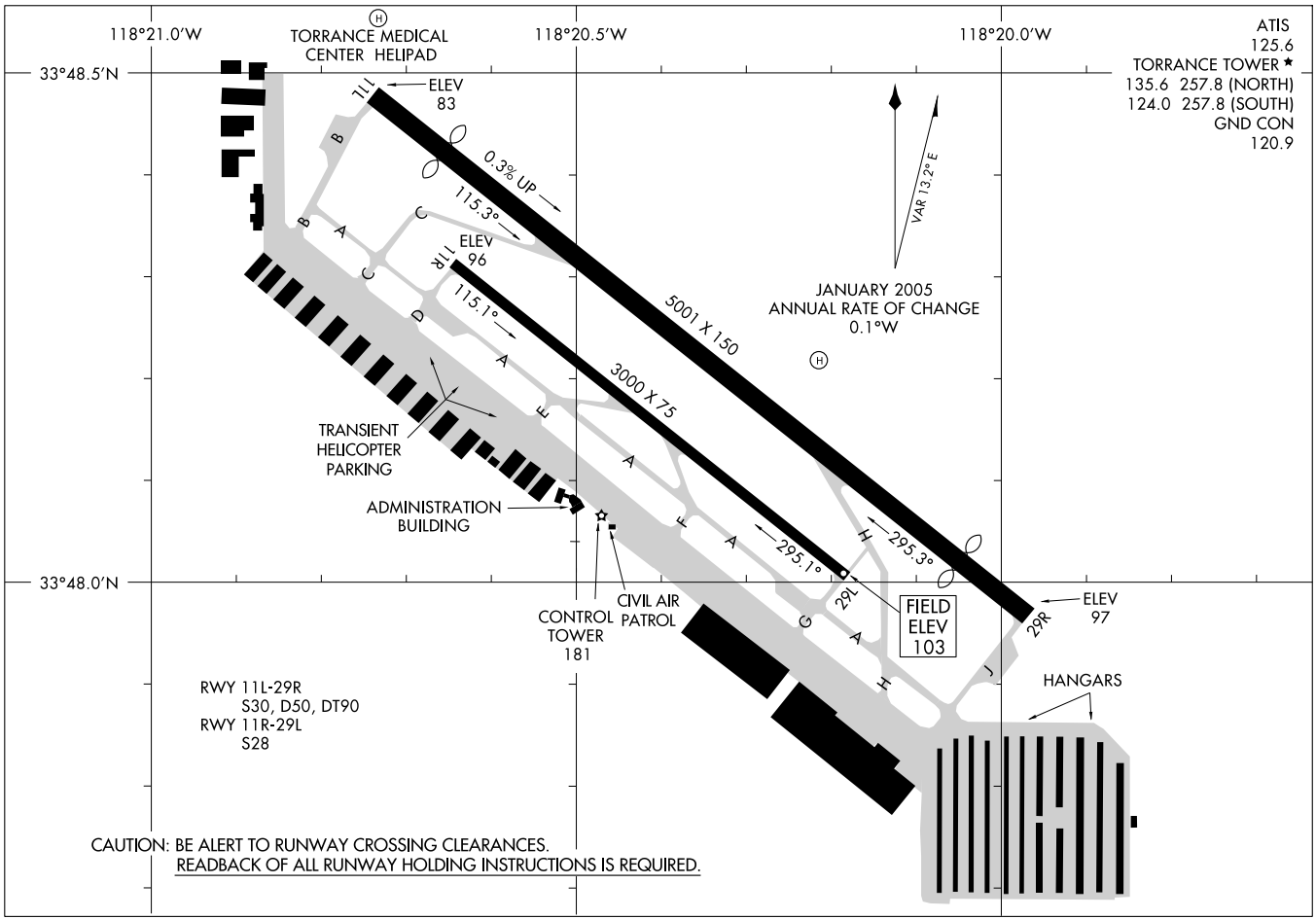




CATEGORY	A	B	C	D
LNAV MDA	5220-1¼ 1075 (1100-1¼)	5220-1½ 1075 (1100-1½)	5220-3	1075 (1100-3)
CIRCLING	5220-1¼ 1071 (1100-1¼)	5220-1½ 1071 (1100-1½)	5220-3	1071 (1100-3)

MIRL Rwy 11-29 L

SW-2, 14 JAN 2010 to 11 FEB 2010



AIRPORT DIAGRAM

AL-5179 (FAA)

TORRANCE/ZAMPERINI FIELD (TOA)
TORRANCE, CALIFORNIA

TORRANCE, CALIFORNIA AL-5179 (FAA)

LOC/DME I-TOA	APP CRS	Rwy Idg	4461
111.9	294°	TDZE	97
Chan 56		Apt Elev	103

ILS or LOC RWY 29R

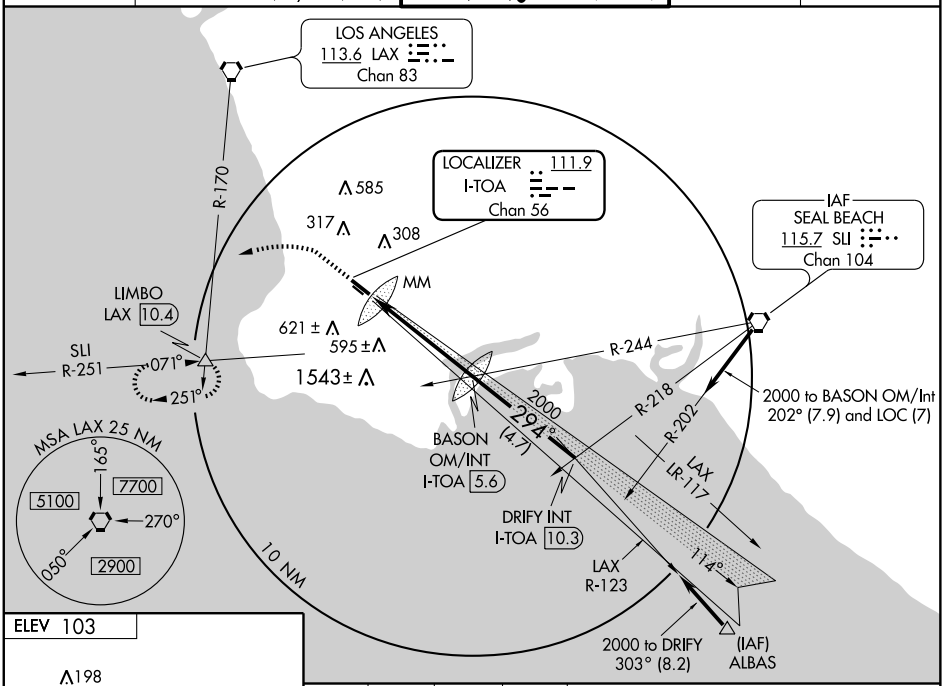
TORRANCE/ ZAMPERINI FIELD (TOA)

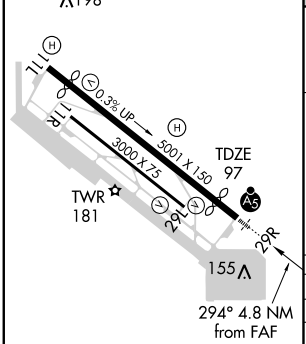
When control tower closed, except for operators with approved weather reporting service, use Los Angeles altimeter setting.
Inoperative table does not apply.
Circling NA southwest of Rwy 11R-29L.

MALSR

MISSED APPROACH: Climb to 1100 then climbing left turn to 3000 via heading 250° and LAX R-170 to LIMBO Int/LAX 10.4 DME and hold.

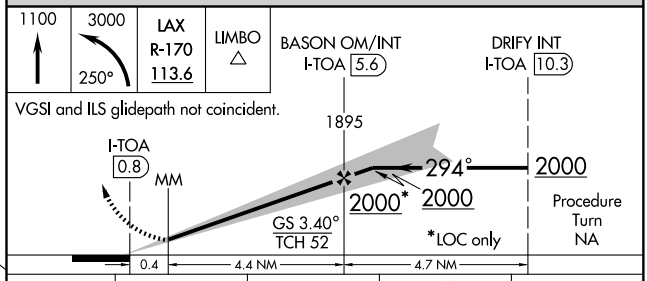
ATIS	SOCAL APP CON	TORRANCE TOWER★	GND CON	UNICOM
125.6	124.3 363.2 (Rwys 11L, 11R) 127.2 269.6 (Rwys 29L, 29R)	135.6 257.8 (NORTH) 124.0 (CTAF) L 257.8 (SOUTH)	120.9	122.95





REIL Rwy 29L
MIRL Rwys 11L-29R and 11R-29L

FAF to MAP 4.8 NM					
Knots	60	90	120	150	180
Min:Sec	4:48	3:12	2:24	1:55	1:36



CATEGORY	A	B	C	D
S-ILS 29R	381-¾ 284 (300-¾)		NA	
S-LOC 29R	620-1 523 (600-1)		NA	
CIRCLING	620-1 517 (600-1)		NA	
LOS ANGELES ALTIMETER SETTING MINIMUMS				
S-ILS 29R	405-1 308 (400-1)		NA	
S-LOC 29R	660-1 563 (600-1)		NA	
CIRCLING	660-1 557 (600-1)		NA	

SW-3, 14 JAN 2010 to 11 FEB 2010

KAYOH FOUR ARRIVAL

SOCAL APP CON
133.85 346.35
FULLERTON MUNI ATIS
125.05
LONG BEACH ATIS
127.75
ORANGE COUNTY ATIS
126.0
TORRANCE MUNI ATIS
125.6

HECTOR TRANSITION (HEC.KAYOH4): From over HEC VORTAC via HEC R-211 and PDZ R-030 to DAWNA INT, then via HDF R-353 to HDF VOR then via HDF R-257 and SLI R-075 to KAYOH INT. Thence....

PALM SPRINGS TRANSITION (PSP.KAYOH4): From over PSP VORTAC via PSP R-260 to BANDS INT, then via HDF R-054 to HDF VOR, then via HDF R-257 and SLI R-075 to KAYOH INT. Thence....

....From over KAYOH INT via SLI R-075 to SLI VORTAC.

Expect radar vectors to final approach course.

HECTOR
112.7 HEC
Chan 74
N34°47.82′
W116°27.78′
L-7, H-4

V8-21-283-587
10,500
211°
(46)

31
44

DAWNA
N34°15.90′-W117°06.78′
VERTICAL NAVIGATION PLANNING INFORMATION
Turbojet: Expect clearance to cross at 13,000′.
Non-Turbojet: Expect clearance to cross at 12,000′.

PARADISE
112.2 PDZ
Chan 59

29

R-030

V283-587
10,500
173°
(29)

POMONA
110.4 POM
Chan 41

KAYOH
N33°46.82′
W117°35.41′
VERTICAL NAVIGATION PLANNING INFORMATION
210K

FULLERTON MUNI

LONG BEACH (DAUGHERTY FIELD)

R-164

R-185

R-154

R-353

V283-372

8000
257°
(16)

19

24

(5)

23

6000
255°
(9)

R-075 4000
(14)

ZAMPERINI FIELD

LOS ALAMITOS AAF

JOGIT
N33°46.91′
W117°46.85′

JOHN WAYNE ARPT-ORANGE COUNTY

DEJAY
N33°46.77′
W117°29.86′

VERTICAL NAVIGATION PLANNING INFORMATION
Expect to cross at or above 8000′.

HOMELAND
113.4 HDF
N33°46.58′-W117°11.12′

R-054

V372
8000
234°
(18)

13,000
260°
(21)

V16-370-372

BANDS
N33°53.38′-W116°50.97′
VERTICAL NAVIGATION PLANNING INFORMATION
Expect clearance to cross at 14,000′.

R-021

SEAL BEACH
115.7 SLI
Chan 104
N33°47.00′-W118°03.29′

PALM SPRINGS
115.5 PSP
Chan 102
N33°52.20′-W116°25.79′
L-4, H-4

OCEANSIDE
115.3 OCN
Chan 100

N

NOTE: Chart not to scale.

VORTAC LAX	APP CRS	Rwy Idg	4459
113.6	135°	TDZE	96
Chan 83		Apt Elev	103

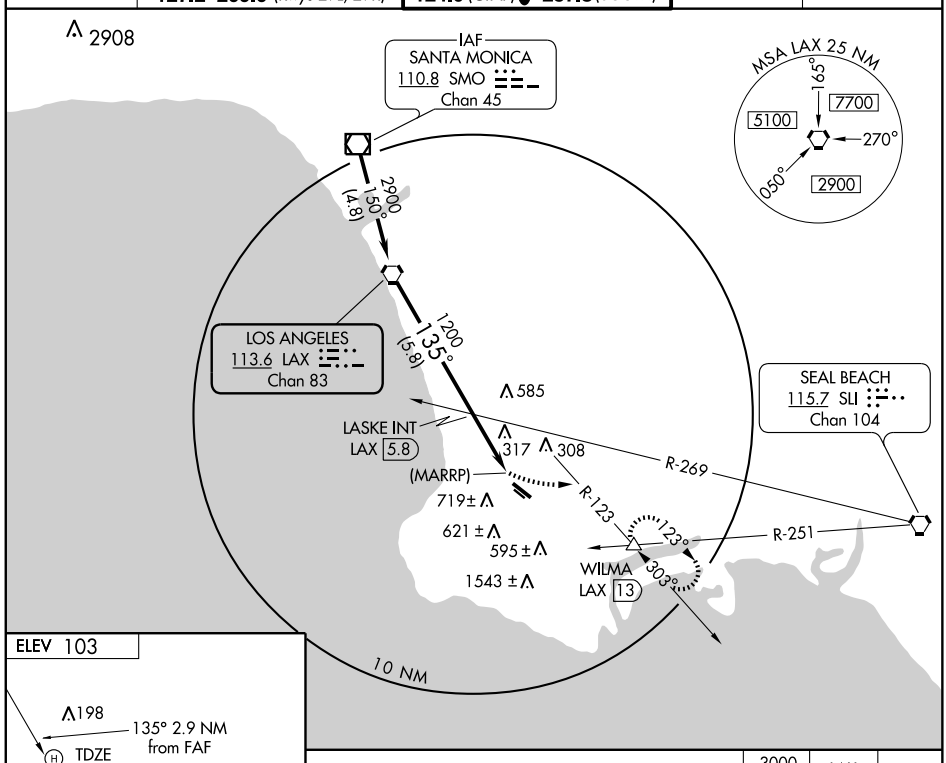
VOR or GPS RWY 11L

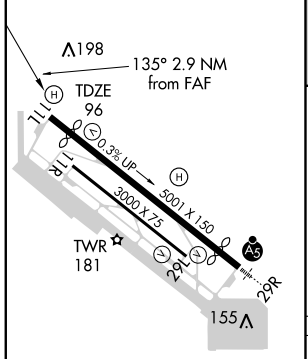
TORRANCE/ ZAMPERINI FIELD (TOA)

When control tower closed, except for operators with approved weather reporting service, use Los Angeles altimeter setting. Circling NA southwest of Rwy 11R-29L.

MISSED APPROACH: Climbing left turn to 3000 via heading 075° and LAX R-123 to WILMA Int and hold.

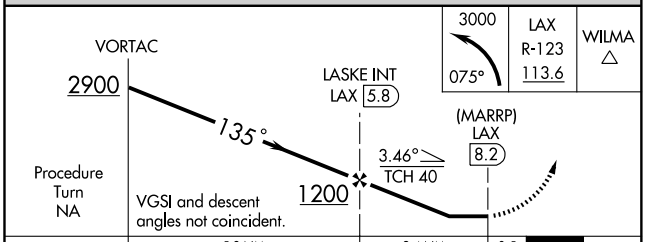
ATIS	SOCAL APP CON	TORRANCE TOWER*	GND CON	UNICOM
125.6	124.3 363.2 (Rwys 11L, 11R) 127.2 269.6 (Rwys 29L, 29R)	135.6 257.8 (NORTH) 124.0 (CTAF) 257.8 (SOUTH)	120.9	122.95





REIL Rwy 29L
MIRL Rwys 11L-29R and 11R-29L

FAF to MAP 2.4 NM					
Knots	60	90	120	150	180
Min:Sec	2:24	1:36	1:12	0:58	0:48



CATEGORY	A	B	C	D
S-11L	980-1¼	884 (900-1¼)	NA	
CIRCLING	980-1¼	877 (900-1¼)	NA	
LOS ANGELES ALTIMETER SETTING MINIMUMS				
S-11L	1020-1¼	924 (1000-1¼)	NA	
CIRCLING	1020-1¼	917 (1000-1¼)	NA	

SW-3, 14 JAN 2010 to 11 FEB 2010

NDB TCY	APP CRS	Rwy Idg	4001
203	114°	TDZE	193
		Apt Elev	193

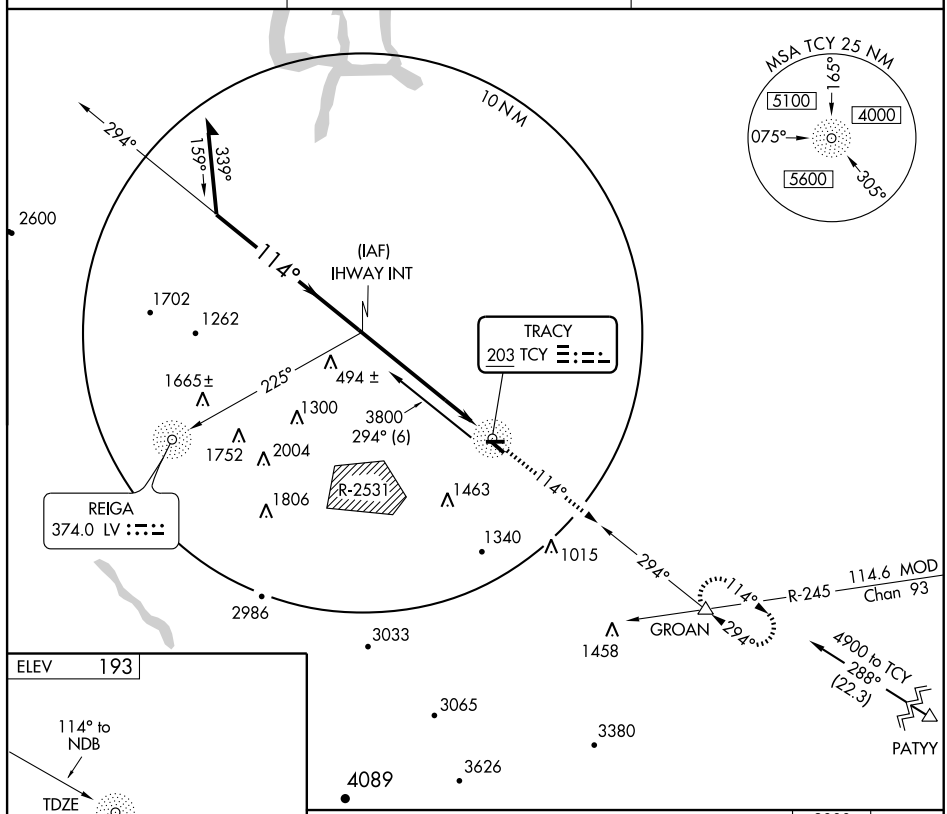
NDB RWY 12

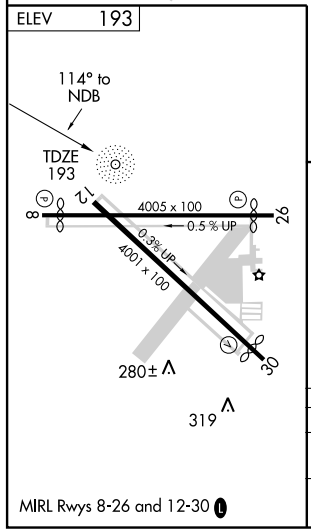
TRACY MUNI (TCY)

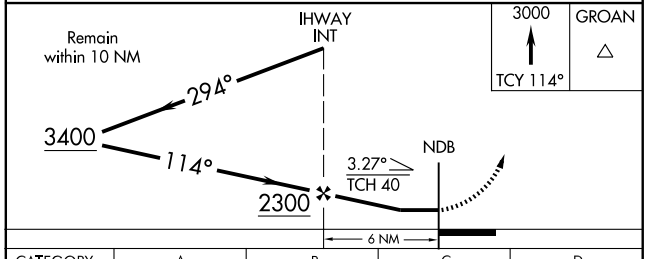
Circling NA southwest of Rwy 12-30.
When local altimeter setting not received use Stockton Metro altimeter setting and increase all MDA 60 feet.

MISSED APPROACH: Climb to 3000 via 114° bearing from TCY NDB to GROAN INT and hold.

AWOS-3	NORCAL APP CON	UNICOM
118.375	123.85 278.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-12	840-1 647 (700-1)		840-1¾ 647 (700-1¾)	NA
CIRCLING	840-1 647 (700-1)		840-1¾ 647 (700-1¾)	NA

MIRL Rwys 8-26 and 12-30 L

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS CH 49200 W12A	APP CRS 116°	Rwy Idg 4001 TDZE 193 Apt Elev 193

RNAV (GPS) RWY 12

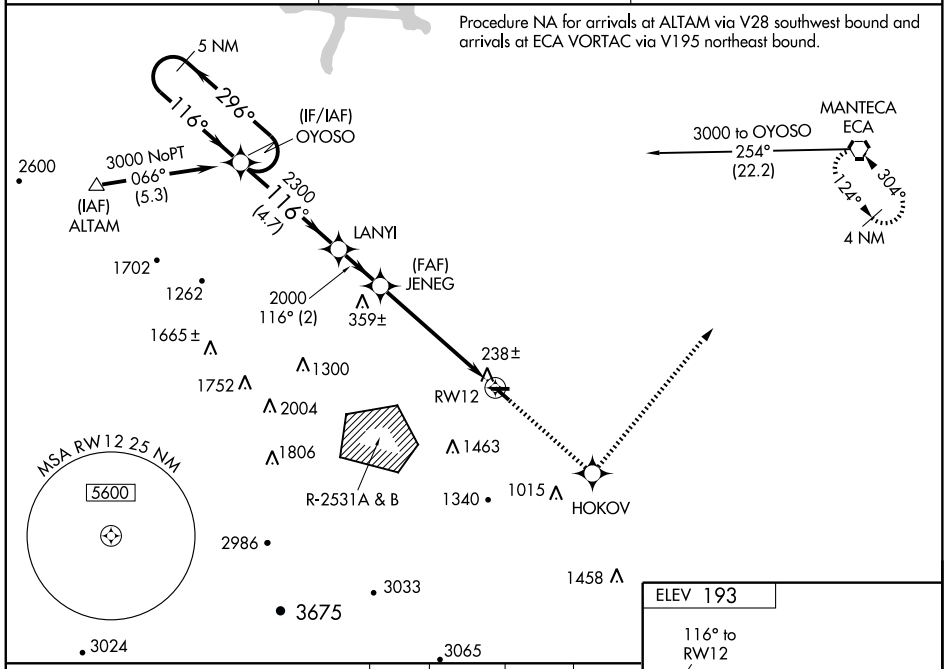
TRACY MUNI (TCY)

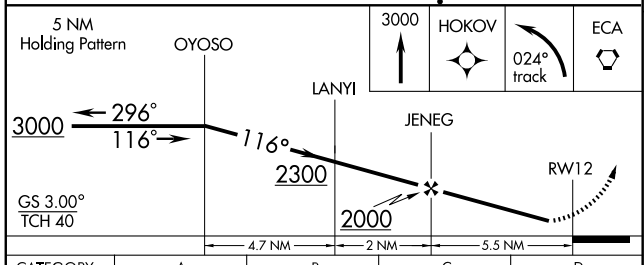
If local altimeter setting not received, use Stockton Metropolitan altimeter setting and increase all DAs/MDAs 60 feet.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 97°C (207°F).
Baro-VNAV NA when using Stockton Metropolitan altimeter setting.
DME/DME RNP -0.3 NA. Circling NA southwest of Rwy 12-30.
Visibility reduction by helicopters NA.

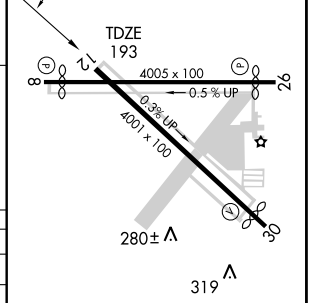
MISSED APPROACH: Climb to 3000 direct HOKOV and left turn via 024° track to ECA VORTAC and hold.

AWOS-3	NORCAL APP CON	UNICOM
118.375	123.85 278.3	122.8 (CTAF) L

Procedure NA for arrivals at ALTAM via V28 southwest bound and arrivals at ECA VORTAC via V195 northeast bound.







CATEGORY	A	B	C	D
LPV DA	448-1 255 (300-1)			NA
LNAV/VNAV DA	656-1¾ 463 (500-1¾)			NA
LNAV MDA	800-1 607 (700-1)		800-1¾ 607 (700-1¾)	NA
CIRCLING	800-1¾ 607 (700-1¾)			NA

MIRL Rwys 8-26 and 12-30 L

SW-2, 14 JAN 2010 to 11 FEB 2010

RNAV (GPS) RWY 26

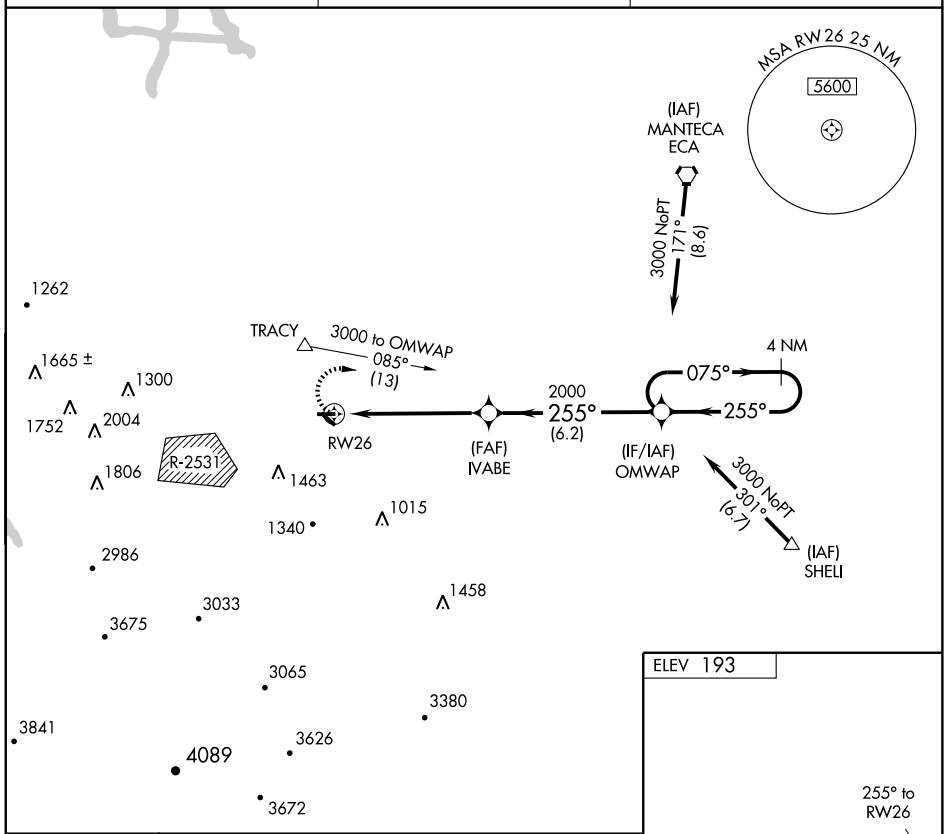
TRACY MUNI (TCY)

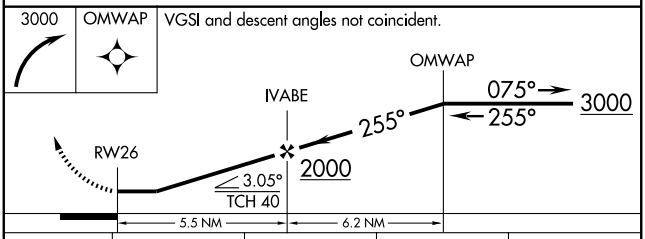
APP CRS		
255°	Rwy Idg	3710
	TDZE	185
	Apt Elev	193

NA — DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received use Stockton Metropolitan altimeter setting and increase all MDA 60 feet. Circling NA Southwest of Rwy 12-30.

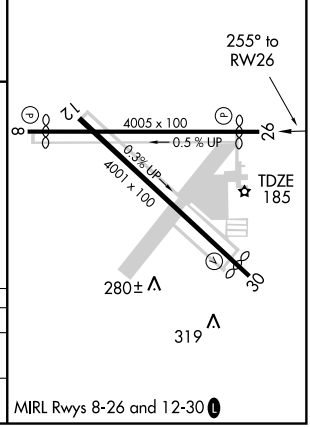
MISSED APPROACH: Climbing right turn to 3000 direct to OMWAP and hold.

AWOS-3	NORCAL APP CON	UNICOM
118.375	123.85 278.3	122.8 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	600-1 415 (500-1)		600-1¼ 415 (500-1¼)	NA
CIRCLING	600-1 407 (500-1)	660-1 467 (500-1)	660-1½ 467 (500-1½)	NA



MIRL Rwys 8-26 and 12-30 L

SW-2, 14 JAN 2010 to 11 FEB 2010

WAAS	APP CRS	Rwy Idg	3740
CH 69201	297°	TDZE	193
W30A		Apt Elev	193

RNAV (GPS) RWY 30
TRACY MUNI (TCY)

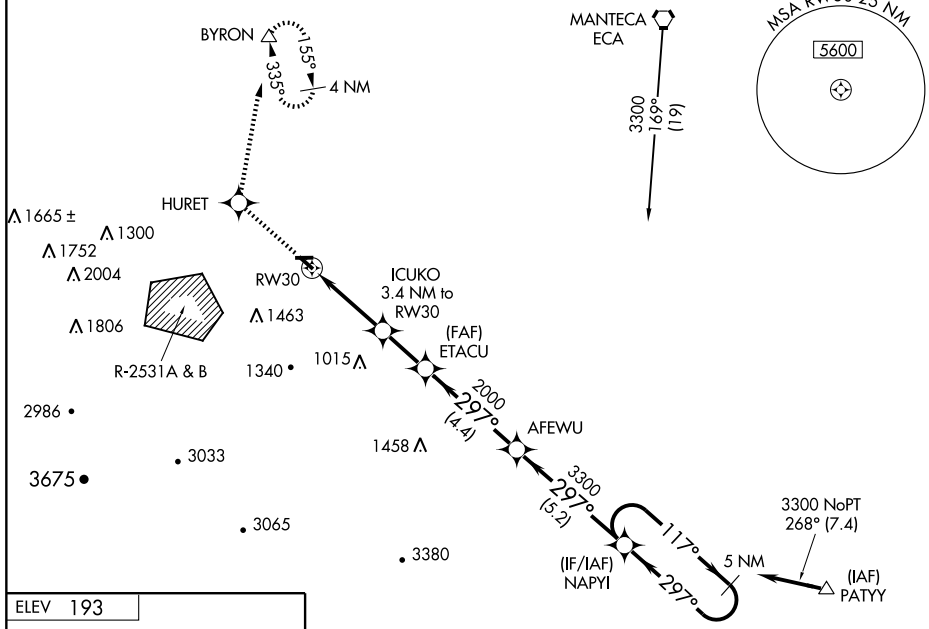
T A NA W

If local altimeter setting not received, use Stockton Metropolitan altimeter setting and increase all DAs/MDAs 60 feet.
Circling NA southwest of Rwy 12-30.
DME/DME RNP -0.3 NA.
Visibility reduction by helicopters NA.

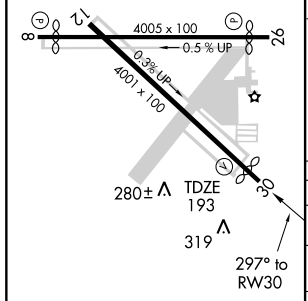
MISSED APPROACH: Climb to 2300 direct HURET and via 355° track to BYRON and hold.

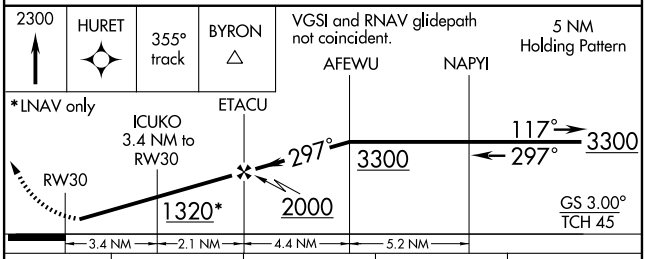
AWOS-3	NORCAL APP CON	UNICOM
118.375	123.85 278.3	122.8 (CTAF) L

Procedure NA for arrivals on ECA VORTAC airway radials 147 CW 229.



ELEV 193





CATEGORY	A	B	C	D
LPV DA	477-1 284 (300-1)			NA
LNAV/VNAV DA	NA			
LNAV MDA	680-1 487 (500-1)		680-1¼ 487 (500-1¼)	NA
CIRCLING	680-1 487 (500-1)		680-1½ 487 (500-1½)	NA

MIRL Rwys 8-26 and 12-30 L

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME RWY 26

TRACY MUNI (TCY)

VOR/DME MOD	APP CRS		
114.6 Chan 93	263°	Rwy Idg	3710
		TDZE	185
		Apt Elev	193

Visibility reduction by helicopters NA. When local altimeter setting not received use Stockton Metro altimeter setting and increase all MDA 60 feet, increase S-26 Cat C visibility ¼ mile and Circling Cat C visibility ¼ mile. Circling NA Southwest of Rwy 12-30.

MISSED APPROACH: Climbing right turn to 3000 direct to ECA VORTAC and hold.

AWOS-3	NORCAL APP CON	UNICOM
118.375	123.85 278.3	122.8 (CTAF) L

MANTECA
116.0 ECA
Chan 107

ALTERNATE MISSED APCH FIX
MODESTO
MOD
114.6
Chan 93
285°-R-105
105°

10 NM
304°-R-124
124°

ZADBA
MOD 22.1
SIGBY
MOD 17.1
(IF)
WIBAG
MOD 11.1
1800
263°
(6)
R-263
3000
263°
(11.1)

IAF
MODESTO
114.6 MOD
Chan 93

R-2531
1300
1463
414±
1015
1340
1458
3033
3675
3065
3626
3380
4089
3672
3720

MSA MOD 25 NM
180°
2800
3500
090°
270°
5100
3000
360°

ELEV 193

TDZE
185

8
26
4005 x 100
0.5% UP
0.3% UP
4001 x 100
30
280±
319

3000
ECA
ZADBA
MOD 22.1
RW26
SIGBY
MOD 17.1
WIBAG
MOD 11.1
3000
263°
1800
Procedure Turn
NA

1 NM 5 NM 6 NM

CATEGORY	A	B	C	D
S-26	760-1¼ 575 (600-1¼)		760-1½ 575 (600-1½)	NA
CIRCLING	760-1¼ 567 (600-1¼)		760-1½ 567 (600-1½)	NA

MIRL Rwys 8-26 and 12-30 L

SW-2, 14 JAN 2010 to 11 FEB 2010

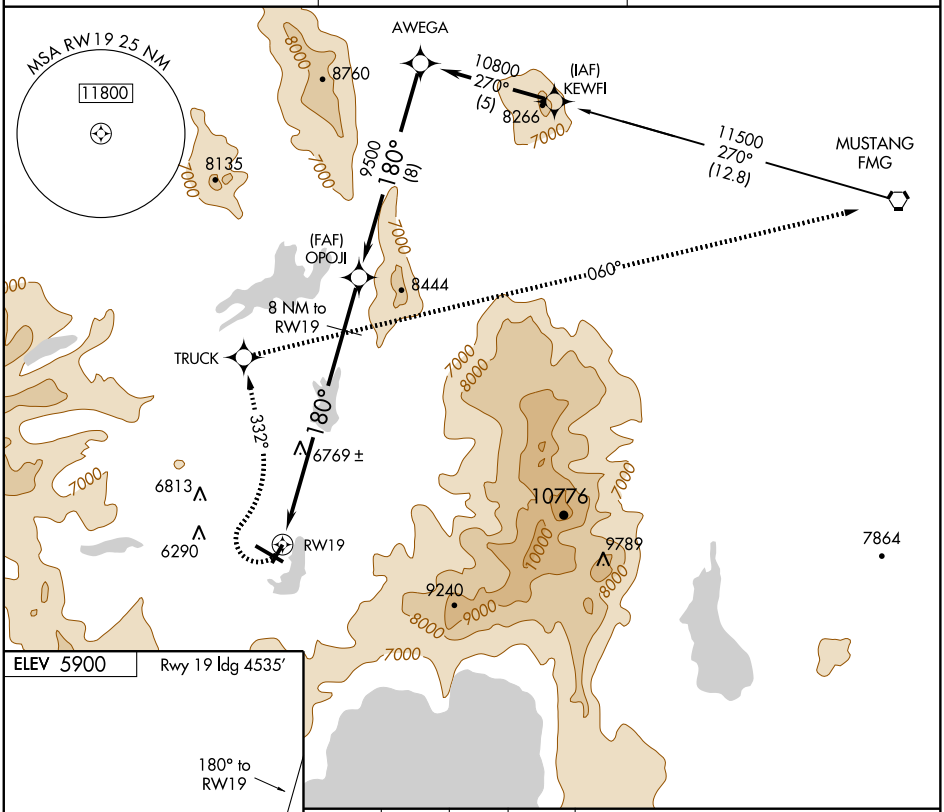
APP CRS	Rwy Idg	4535
180°	TDZE	5894
	Apt Elev	5900

GPS RWY 19
TRUCKEE-TAHOE (TRK)

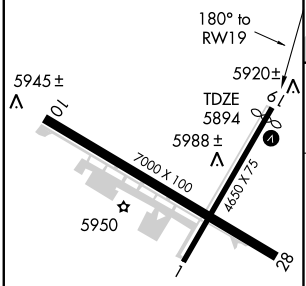
NA

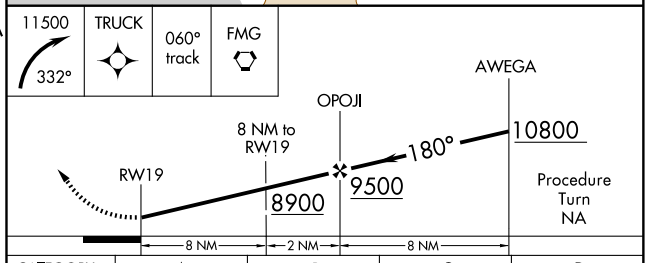
MISSED APPROACH: Climbing right turn to 11500 via 332° course to TRUCK WP then via 060° course to FMG VORTAC.

AWOS-3	OAKLAND CENTER	UNICOM
118.0	127.95 316.1	122.8 (CTAF) L



ELEV 5900 | Rwy 19 ldg 4535'





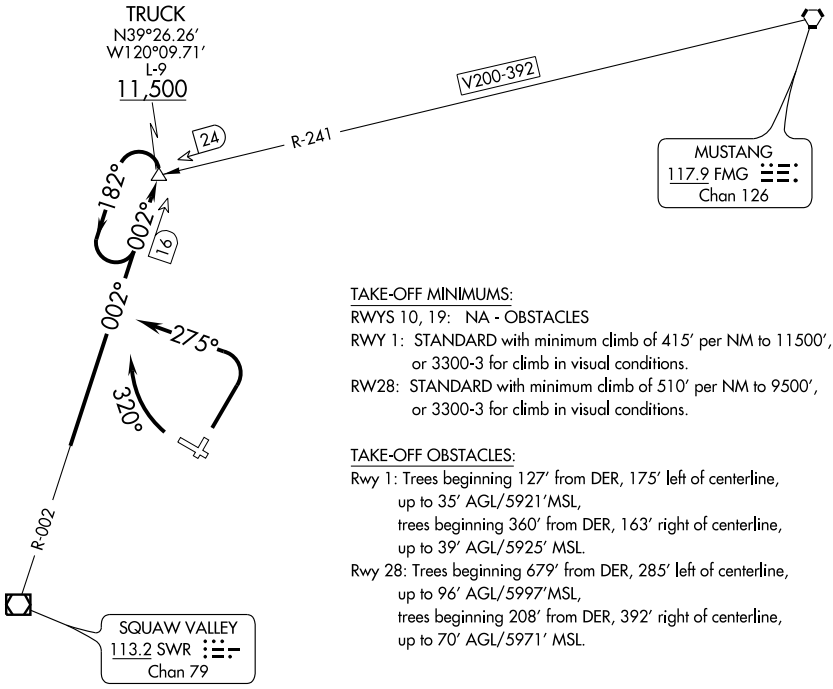
CATEGORY	A	B	C	D
S-19	7340-1¼ 1446 (1500-1¼)	7340-1½ 1446 (1500-1½)	7340 -3 1446 (1500-3)	
CIRCLING	7340-1¼ 1440 (1500-1¼)	7340-1½ 1440 (1500-1½)	7340-3 1440 (1500-3)	7360-3 1460 (1500-3)

REIL Rwy 10
MIRL Rwys 10-28 and 1-19 L

SW-2, 14 JAN 2010 to 11 FEB 2010

TRUCK THREE DEPARTURE (OBSTACLE)

OAKLAND CENTER
127.95 316.1
UNICOM 122.8 (CTAF)
AWOS-3 118.0



TAKE-OFF MINIMUMS:
RWYS 10, 19: NA - OBSTACLES
RWY 1: STANDARD with minimum climb of 415' per NM to 11500', or 3300-3 for climb in visual conditions.
RW28: STANDARD with minimum climb of 510' per NM to 9500', or 3300-3 for climb in visual conditions.

TAKE-OFF OBSTACLES:
Rwy 1: Trees beginning 127' from DER, 175' left of centerline, up to 35' AGL/5921'MSL,
trees beginning 360' from DER, 163' right of centerline, up to 39' AGL/5925' MSL.
Rwy 28: Trees beginning 679' from DER, 285' left of centerline, up to 96' AGL/5997'MSL,
trees beginning 208' from DER, 392' right of centerline, up to 70' AGL/5971' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 1: Climbing left turn to 11,500' via heading 275°and SWR R-002 to TRUCK INT, thence..., or, climb in visual conditions to cross Trukee-Tahoe Airport heading 290° at or above 9100', then proceed on SWR R-002 to TRUCK INT, thence...
TAKE-OFF RUNWAY 28: Climbing right turn to 11,500' via heading 320° and SWR R-002 to TRUCK INT, thence...,or, climb in visual conditions to cross Trukee-Tahoe Airport heading 290° at or above 9100', then proceed on SWR R-002 to TRUCK INT, thence...

...Cross TRUCK INT at or above 11,500'. If required, continue climb-in-TRUCK INT holding pattern to cross TRUCK INT at or above 11,500'.

SW-2, 14 JAN 2010 to 11 FEB 2010

VOR/DME SWR	APP CRS	Rwy Idg	N/A
113.2	104°	TDZE	N/A
Chan 79		Apt Elev	5900

VOR/DME RNAV or GPS-A

TRUCKEE-TAHOE (TRK)

T NA If local altimeter setting not received, procedure not authorized.

MISSED APPROACH: Climbing left turn to 11500 via track 312° to TRUCK WP and hold.

AWOS-3	OAKLAND CENTER	UNICOM
118.0	127.95 316.1	122.8 (CTAF) L

IAF LOLLA
N39°25.23′-W120°22.02′
113.2 SWR 326.6°-15.1
8860

TRUCK
N39°26.26′-W120°09.71′
113.2 SWR 002.0°-16.2
8860

7 NM 241° 061°

11000 248° (9.6)

4 NM 104° 284°

9400 104° (2.5)

11000 NoPT 055° (13.4)

(IAF) SIGNA

(SOZVU)
7.5 NM from MAP WP
N39°23.24′-W120°17.55′

(FAF) (IPODY)
5 NM from MAP WP
N39°21.99′ W120°14.75′

MAP (MARDR)
N39°19.49′-W120°09.16′
113.2 SWR 016.1°-10.2
8860

8080 8135 8444 8373 9148 9103 7841 7171± 6813 6290 9240 8683 8030 8757 9006 8878

SQUAW VALLEY
113.2 SWR
Chan 79

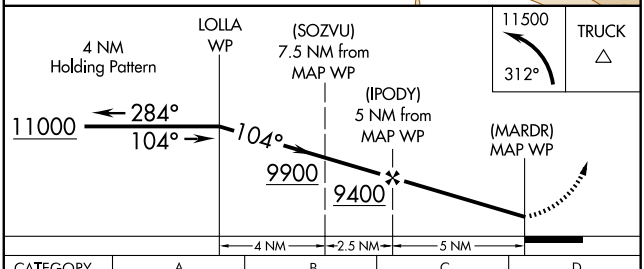
ELEV 5900 Rwy 19 ldg 4535′

104° to MAP WP

5945± 5920± 5988± 5950

7000 X 100 4650 X 75

10 28 19 1



CATEGORY	A	B	C	D
CIRCLING	8200-1¼ 2300 (2300-1¼)	8200-1½ 2300 (2300-1½)	8200-3	2300 (2300-3)

REIL Rwy 10
MIRL Rwys 10-28 and 1-19 L

VOR/DME VIS	APP CRS	Rwy Idg	3914
109.4	133°	TDZE	271
Chan 31		Apt Elev	271

VOR/DME or GPS RWY 13

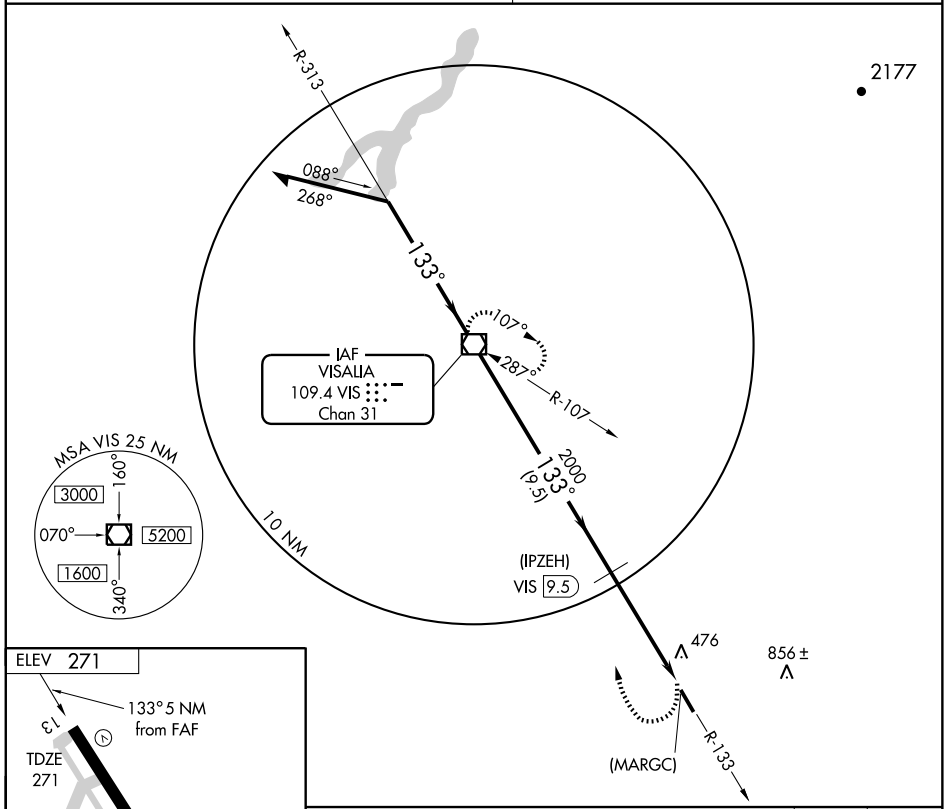
TULARE/MEFFORD FIELD (TLR)

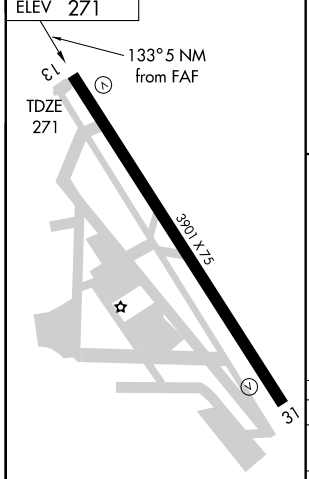
Use Visalia altimeter, if not received, use Fresno Air Terminal altimeter setting and increase all MDAs 200 feet.
NA

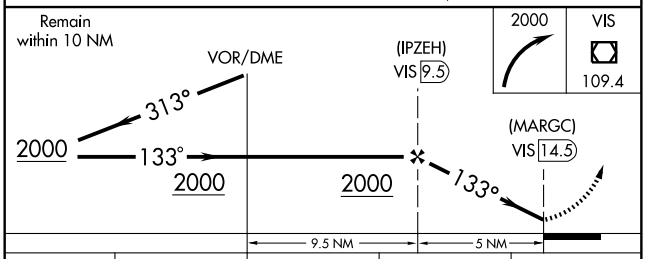
MISSED APPROACH: Climbing right turn to 2000 direct VIS VOR/DME and hold.

FRESNO APP CON
118.5 268.7

UNICOM
122.7 (CTAF) L

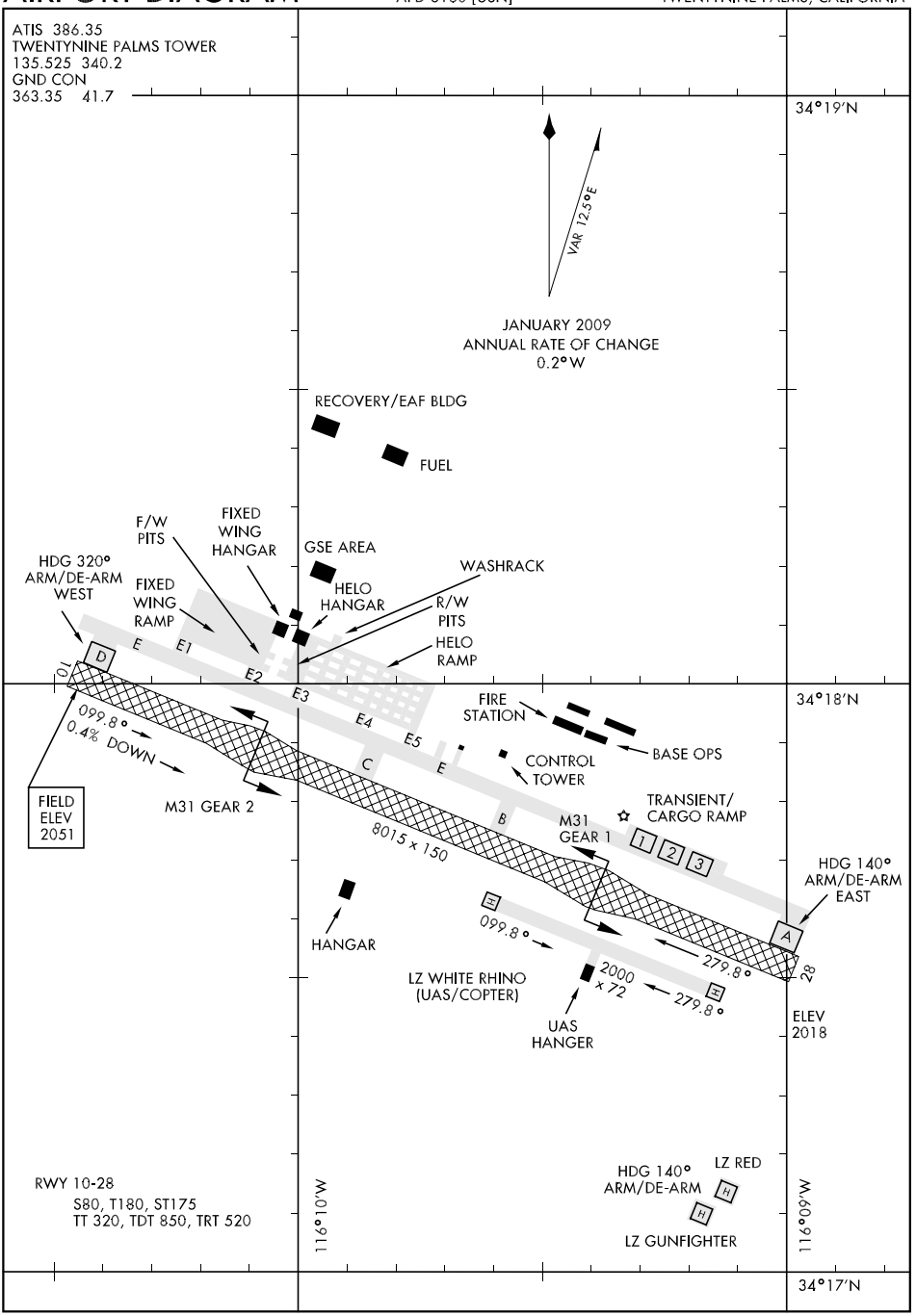






CATEGORY	A	B	C	D
S-13	920-1 649 (700-1)		920-1½ 649 (700-1½)	NA
CIRCLING	920-1 649 (700-1)		920-1½ 649 (700-1½)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010



SW-3, 14 JAN 2010 to 11 FEB 2010

CACTI-FIVE DEPARTURE (CACTI5 • TNP)

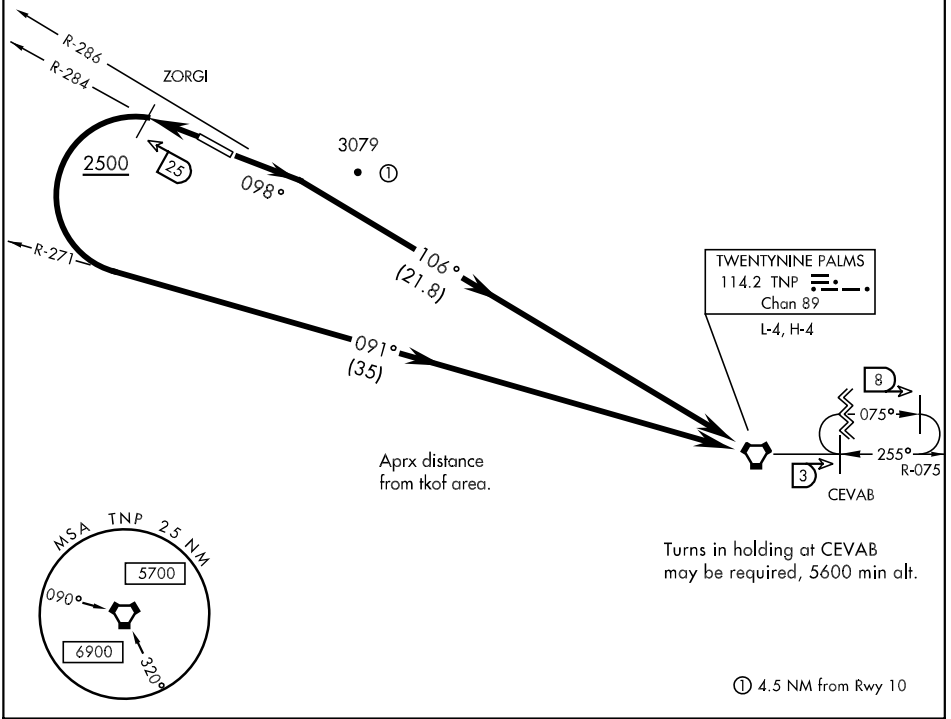
SHL-3160 [USN]

ATIS 386.35
GND CON
363.35 41.7
TWENTYNINE PALMS TOWER
135.525 340.2
LOS ANGELES CENTER
128.15 285.6

Rwy	Knots	60	120	180	240	300	360
*10 ⓐ	V/V(fpm)	285	570	855	1140	1425	1710
**10 ⓑ	V/V(fpm)	315	630	945	1260	1575	1890
†28 ⓒ	V/V(fpm)	235	470	705	940	1175	1410

* Minimum ** Civil minimum † ATC Climb Rate

ⓐ to 3300
ⓑ to 3400
ⓒ to 2500



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 10: Climb via heading 098° to intercept and proceed via TNP VORTAC R-286 to TNP.

TAKE-OFF RWY 28: Climb via TNP VORTAC R-284 to cross ZORGI at or above 2500. Then turn left to join and proceed via TNP R-271 to TNP.

SW-3, 14 JAN 2010 to 11 FEB 2010

COPTER TACAN RWY 28

TACAN	APCH CRS	Rwy ldg	TDZE	Arpt Elev
NXP Chan 63	296°	8015	2022	2051

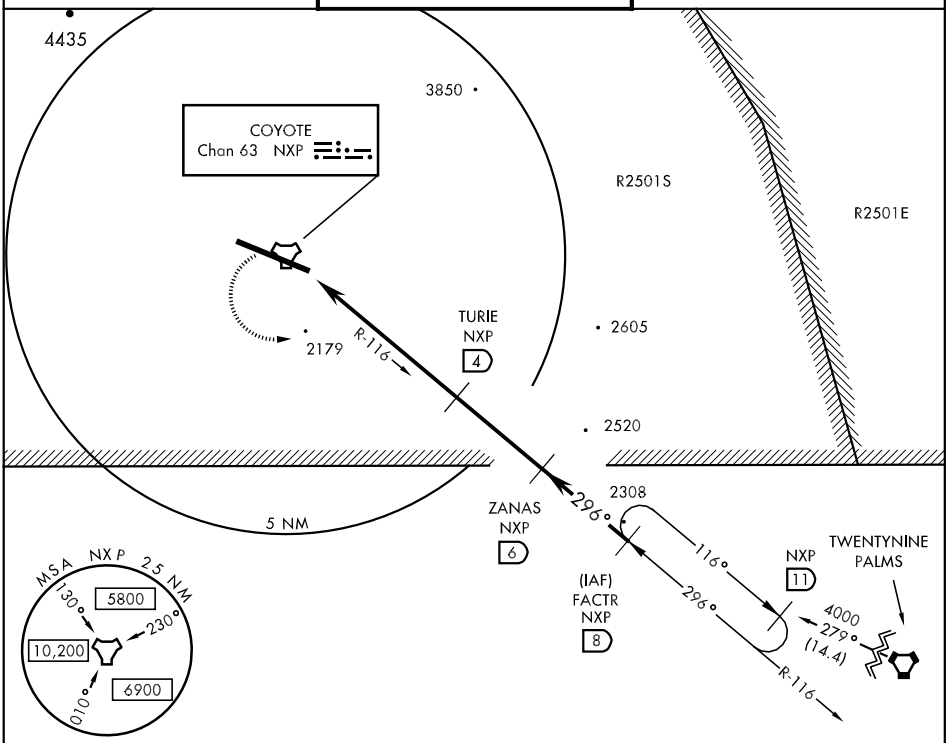
AL-3160 USN]

TWENTYNINE PALMS SELF (KNXP)

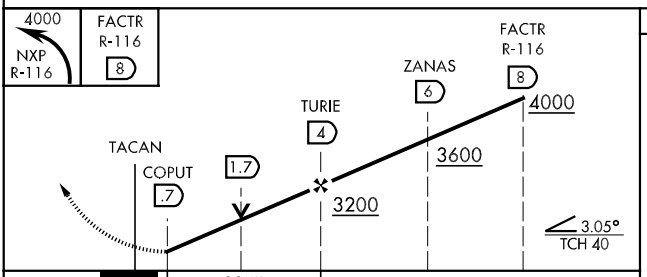
SALSF

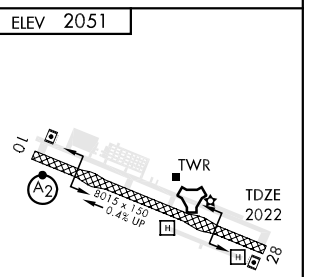
MISSED APPROACH: Climbing left turn to 4000 via NXP TACAN R-116 to FACTR and hold.

ATIS	TWENTYNINE PALMS TOWER	GND CON
386.35	135.525 340.2	363.35 41.7



EMERG SAFE ALT 100 NM 13,600





CATEGORY	COPTER
H-28	2440-½ 418 (400-½)
CIRCLING	NOT AUTHORIZED

HIRL Rwy 10-28

SW-3, 14 JAN 2010 to 11 FEB 2010

HI-TACAN RWY 28

TACAN NXP Chan 63	APCH CRS 286°	Rwy ldg 8015 TDZE 2022 Arpt Elev 2051

JAL-3160 [USN]

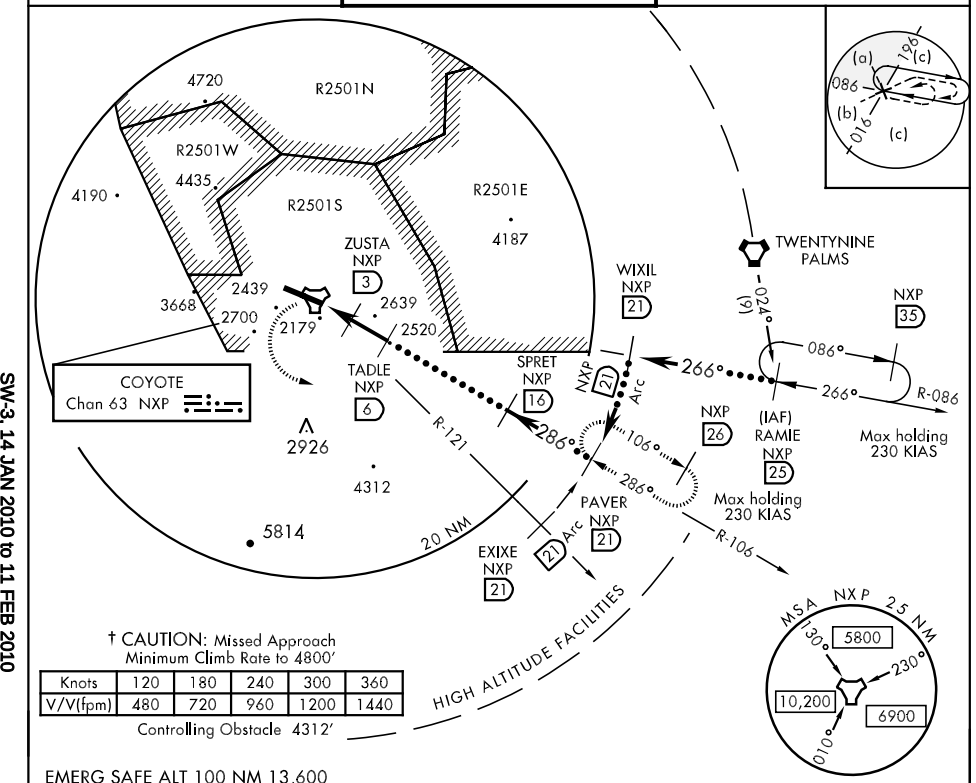
TWENTYNINE PALMS SELF (KNXP)

▼ * When ALS inop, increase vis CAT CD to 1¼ miles, CAT E vis to 1½ miles.
** Circling not authorized N of Rwy 10-28.

SALSF (A2)

† MISSED APPROACH: Climbing left turn to 6000 via NXP TACAN R-121 to EXIXE. Then Arc SE of NXP TACAN via NXP 21 DME Arc to PAVER and hold.

ATIS	PALMS TOWER	GND CON
386.35	135.525 340.2	363.35 41.7

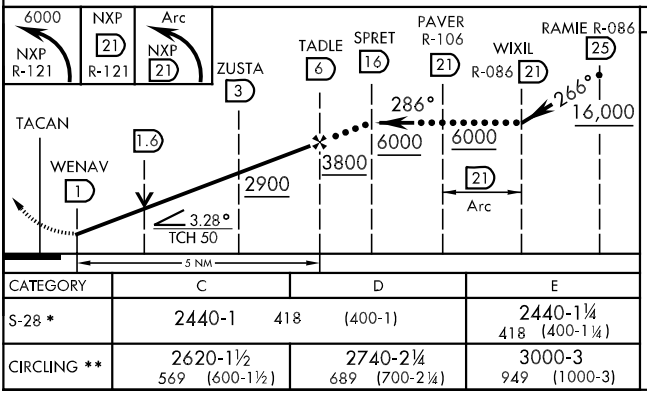


† CAUTION: Missed Approach Minimum Climb Rate to 4800'

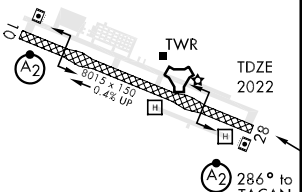
Knots	120	180	240	300	360
V/V(fpm)	480	720	960	1200	1440

Controlling Obstacle 4312'

EMERG SAFE ALT 100 NM 13,600



ELEV 2051



CATEGORY	C	D	E
S-28 *	2440-1 418 (400-1)		2440-1¼ 418 (400-1¼)
CIRCLING **	2620-1½ 569 (600-1½)	2740-2¼ 689 (700-2¼)	3000-3 949 (1000-3)

HIRL Rwy 10-28

SW-3, 14 JAN 2010 to 11 FEB 2010

HI-VOR/DME RWY 28

VOR/DME TNP	APCH CRS	Rwy Idg	8015
114.2	285°	TDZE	2022
Chan 89		Arpt Elev	2051

JAL-3160 [USN]

TWENTYNINE PALMS SELF (KNXP)

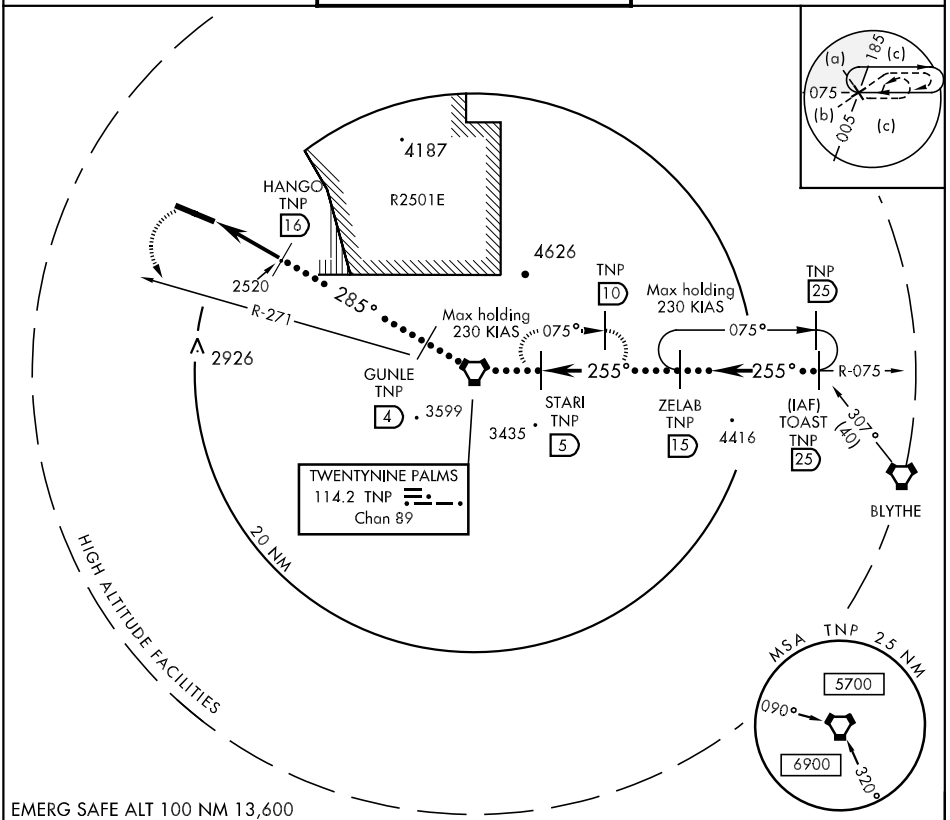
* When ALS inop, increase vis CAT CDE to 3 miles.

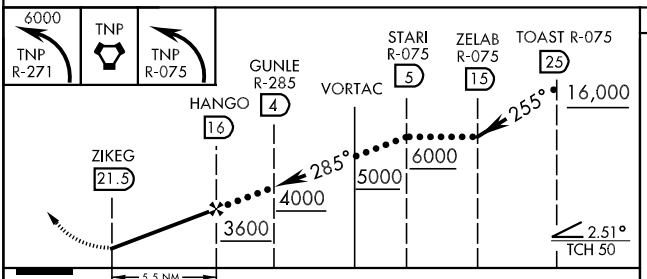
** Circling not authorized N of Rwy 10-28.

SALSF

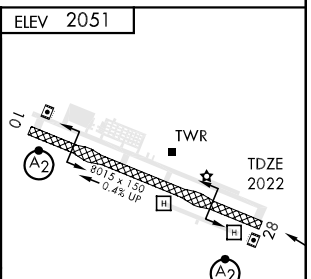
MISSED APPROACH: Climbing left turn to 6000 via TNP VORTAC R-271 direct TNP. Then via TNP R-075 to STARI and hold.

ATIS	PALMS TOWER	GND CON
386.35	135.525 340.2	363.35 41.7





ELEV 2051



CATEGORY	C	D	E
S-28 *	3480-2¾ 1458 (1500-2¾)		
CIRCLING **	3480-3 1429 (1500-3)		

HIRL Rwy 10-28

TACAN RWY 28

TACAN NXP Chan 63	APCH CRS 286°	Rwy ldg 8015 TDZE 2022 Arpt Elev 2051

AL-3160 [USN]

TWENTYNINE PALMS SELF (KNXP)

▼ * When ALS inop, increase vis CAT AB to 1 mile, CAT CD to 1¼ miles.
** Circling not authorized N of Rwy 10-28.

SALSF A2

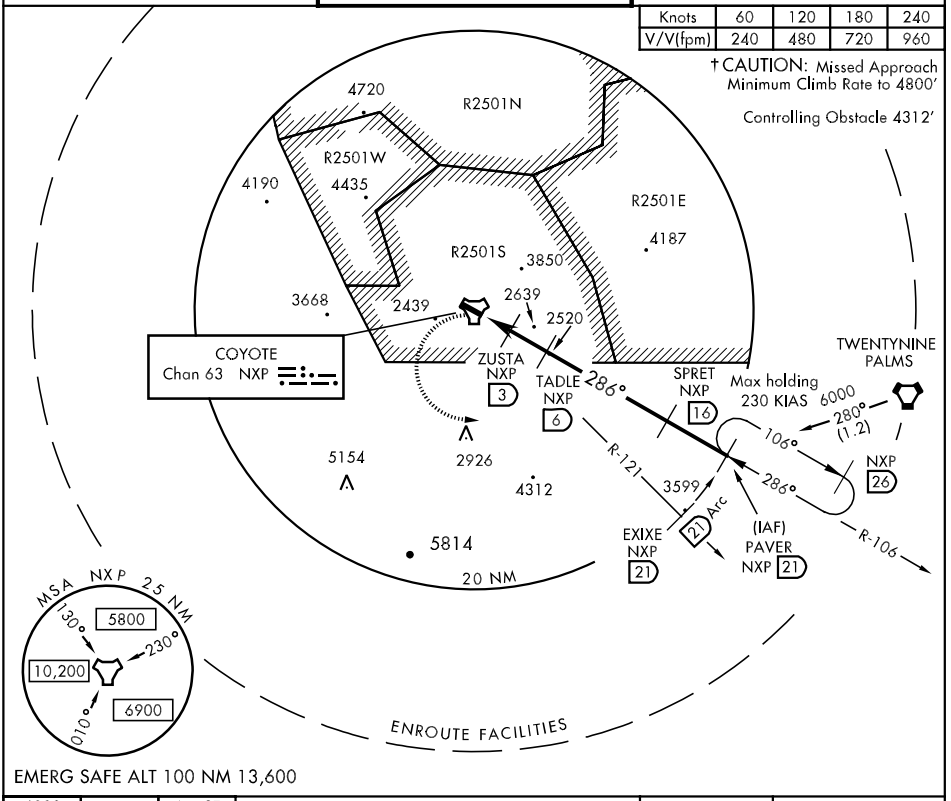
† MISSED APPROACH: Climbing left turn to 6000 via NXP TACAN R-121 to EXIXE. Then Arc SE of NXP via NXP 21 DME Arc to PAVER and hold.

ATIS	TWENTYNINE PALMS TOWER	GND CON
386.35	135.525 340.2	363.35 41.7

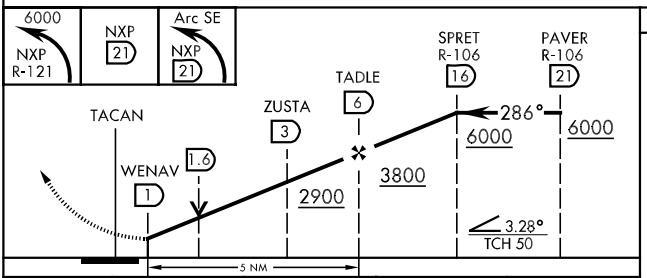
Knots	60	120	180	240
V/V(fpm)	240	480	720	960

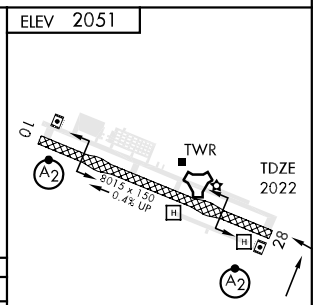
† CAUTION: Missed Approach Minimum Climb Rate to 4800'

Controlling Obstacle 4312'



EMERG SAFE ALT 100 NM 13,600





CATEGORY	A	B	C	D
S-28 *	2440-¾ 418 (400-¾)		2440-1 418 (400-1)	
CIRCLING **	2580-1 529 (600-1)		2620-1½ 569 (600-1½)	2740-2¼ 689 (700-2¼)

HIRL Rwy 10-28

SW-3, 14 JAN 2010 to 11 FEB 2010

VOR/DME RWY 28

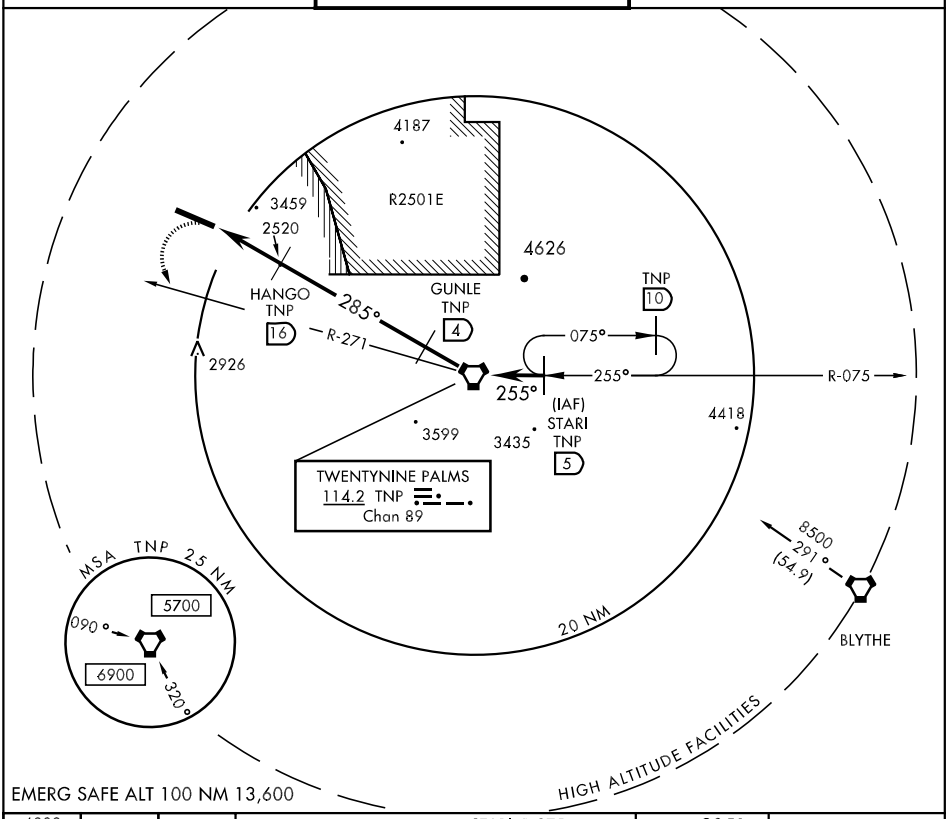
VORTAC TNP 114.2 Chan 89	APCH CRS 285°	Rwy ldg 8015 TDZE 2022 Arpt Elev 2051	AL-3160 [USN]	TWENTYNINE PALMS SELF (KNXP)

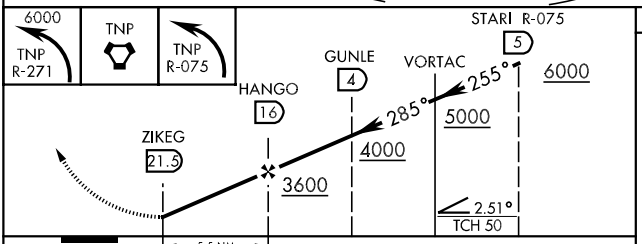
* When ALS inop, increase CAT A to 1¼ miles, CAT B to 1½ miles, CAT CD to 3 miles.
** Circling not authorized N of Rwy 10-28.

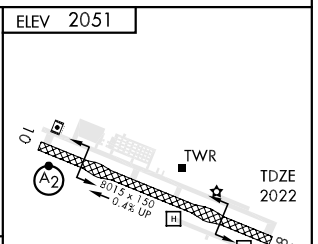
SALSF

MISSED APPROACH: Climbing left turn to 6000 via TNP VORTAC R-271 direct TNP. Then via TNP R-075 to STARI and hold.

ATIS	TWENTYNINE PALMS TOWER	GND CON
386.35	135.525 340.2	363.35 41.7







CATEGORY	A	B	C	D
S-28 *	3480-1 1458 (1500-1)	3480-1¼ 1458 (1500-1¼)	3480-2¾ 1458 (1500-2¾)	
CIRCLING **	3480-1¼ 1429 (1500-1¼)	3480-1½ 1429 (1500-1½)	3480-3 1429 (1500-3)	

APP CRS	Rwy Idg	5531
262°	TDZE	1835
	Apt Elev	1888

RNAV (GPS) RWY 26

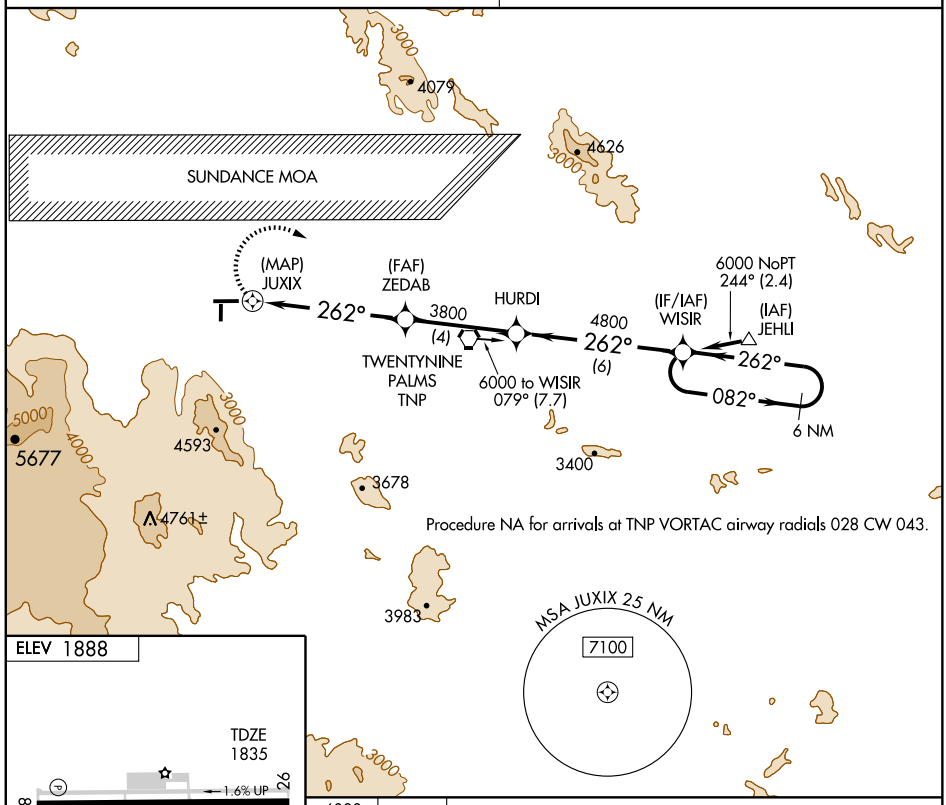
TWENTYNINE PALMS (TNP)

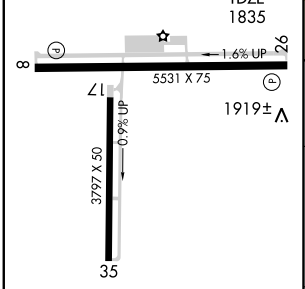
When Palm Springs Intl altimeter setting not received, procedure NA.
Circling NA south of Rwy 8-26. DME/DME RNP- 0.3 NA.
Use Palm Springs Intl altimeter setting.

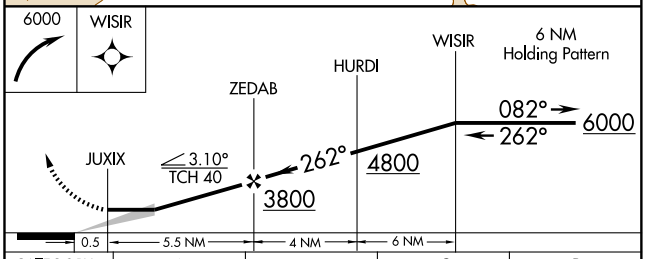
NA

MISSED APPROACH: Climbing right turn to 6000 direct WISIR and hold.

LOS ANGELES CENTER	UNICOM
128.15 285.6	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	3040-1¼ 1205 (1200-1¼)	3040-1½ 1205 (1200-1½)	NA	
CIRCLING	3240-1¼ 1352 (1400-1¼)	3240-1½ 1352 (1400-1½)	NA	

REIL Rwys 8 and 26 L
MIRL Rwys 8-26 and 17-35 L

SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC TNP	APP CRS	Rwy Idg	5531
114.2	264°	TDZE	1835
Chan 89		Apt Elev	1888

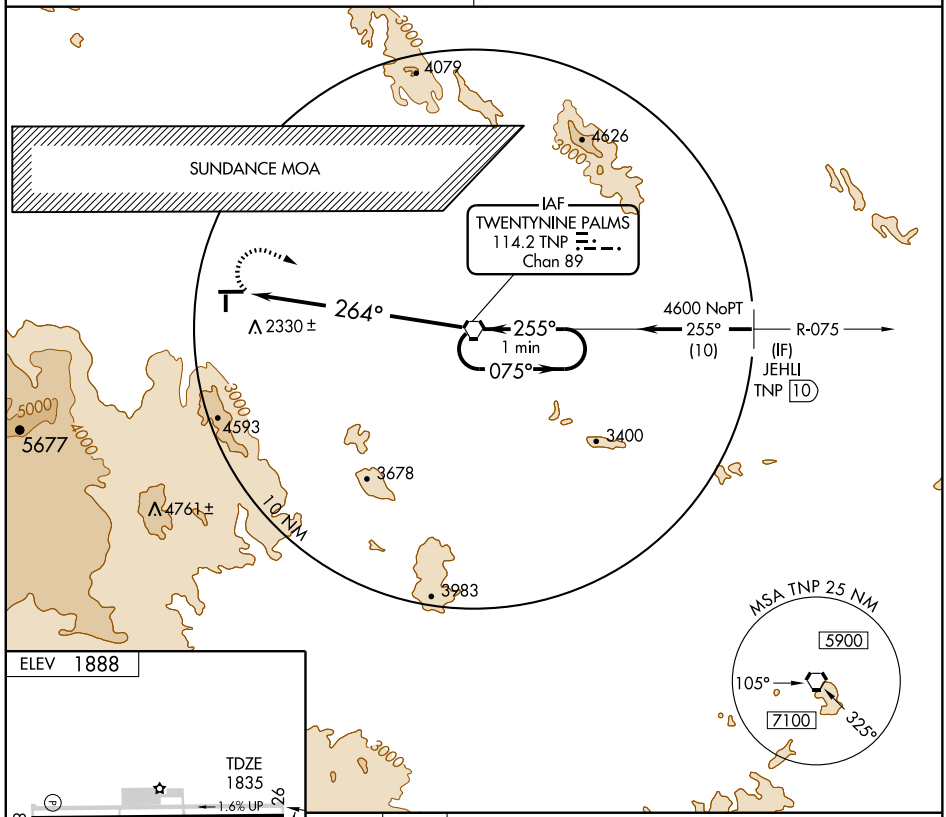
VOR RWY 26
TWENTYNINE PALMS (TNP)

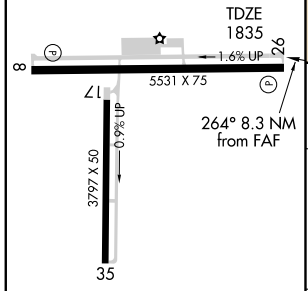
T NA — When Palm Springs Intl altimeter setting not received, procedure NA. Circling NA south of Rwy 8-26. Use Palm Springs Intl altimeter setting.

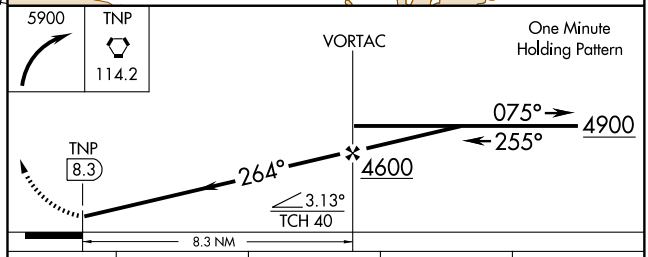
MISSED APPROACH: Climbing right turn to 5900 direct TNP VORTAC and hold, continue climb-in-hold to 5900.

LOS ANGELES CENTER
128.15 285.6

UNICOM
122.8 (CTAF) L







REIL Rwys 8 and 26 L
MIRL Rwys 8-26 and 17-35 L

FAF to MAP 8.3 NM

Knots	60	90	120	150	180
Min:Sec	8:18	5:32	4:09	3:19	2:46

CATEGORY	A	B	C	D
S-26	3580-1¼ 1745 (1700-1¼)	3580-1½ 1745 (1700-1½)	NA	
CIRCLING	3580-1¼ 1692 (1700-1¼)	3580-1½ 1692 (1700-1½)	NA	

SW-3, 14 JAN 2010 to 11 FEB 2010

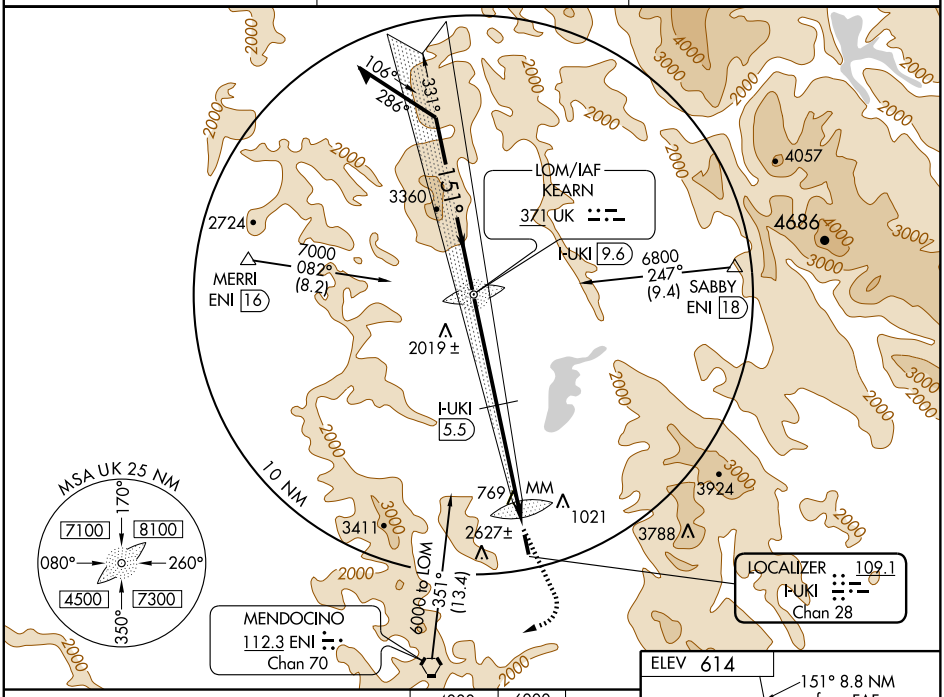
LOC/DME I-UKI	APP CRS	Rwy Idg	4415
109.1	151°	TDZE	614
Chan 28		Apt Elev	614

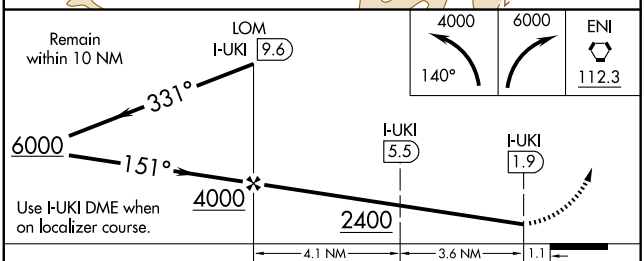
LOC RWY 15
UKIAH MUNI (UKI)

Circling NA west of Rwy 15-33.

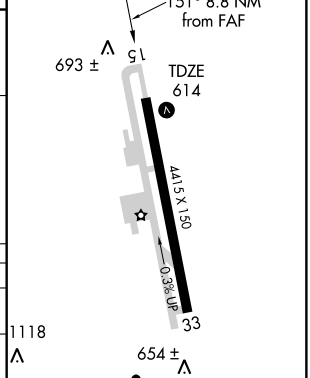
MISSED APPROACH: Climbing left turn to 4000 via heading 140°, then climbing right turn to 6000 direct ENI VORTAC.

ASOS	OAKLAND CENTER	UNICOM
119.275	127.8 353.5	123.0 (CTAF) L





CATEGORY	A	B	C	D
S-15	2400-1¼ 1786 (1800-1¼)	2400-1½ 1786 (1800-1½)	2400-3 1786 (1800-3)	
CIRCLING	2400-1¼ 1786 (1800-1¼)	2400-1½ 1786 (1800-1½)	2400-3 1786 (1800-3)	
DME MINIMUMS				
S-15	1720-1¼ 1106 (1200-1¼)	1720-1½ 1106 (1200-1½)	1720-3 1106 (1200-3)	
CIRCLING	1720-1¼ 1106 (1200-1¼)	1720-1½ 1106 (1200-1½)	1720-3 1106 (1200-3)	



FAF to MAP 7.7 NM

Knots	60	90	120	150	180
Min:Sec	7:42	5:08	3:51	3:05	2:34

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	N/A
331°	TDZE	N/A
	Apt Elev	614

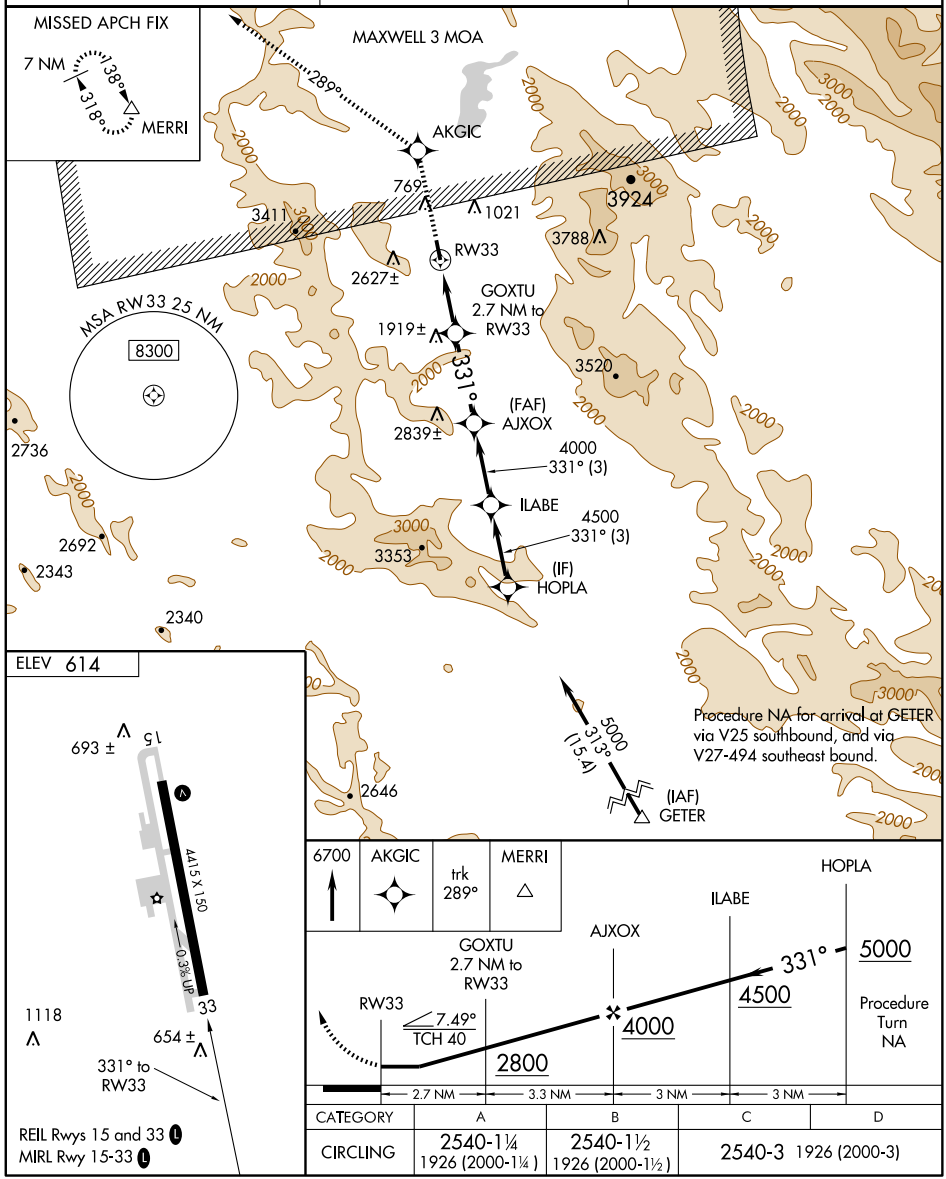
RNAV (GPS) -B

UKIAH MUNI (UKI)

Circling NA west of Rwy 15-33. DME/DME RNP- 0.3 NA. When local altimeter setting not received, procedure NA.

MISSED APPROACH: Climb to 6700 direct AKGIC and via track 289° to MERRI and hold, continue climb-in-hold to 6700.

ASOS	OAKLAND CENTER	UNICOM
119.275	127.8 353.5	123.0 (CTAF) L



CATEGORY	A	B	C	D
CIRCLING	2540-1¼ 1926 (2000-1¼)	2540-1½ 1926 (2000-1½)	2540-3 1926 (2000-3)	

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC ENI 112.3 Chan 70	APP CRS 022°	Rwy Idg N/A TDZE N/A Apt Elev 614

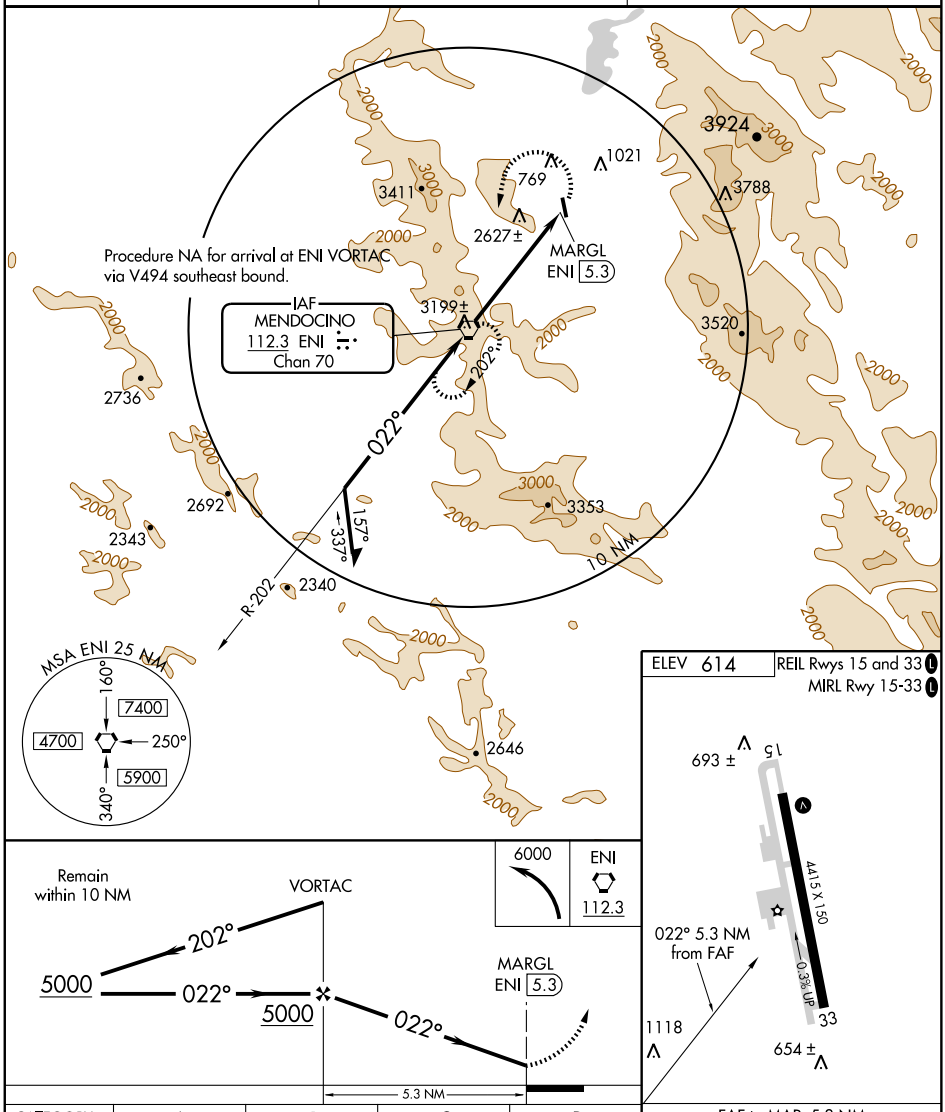
VOR-A

UKIAH MUNI (UKI)

Circling NA west of Rwy 15-33.
When local altimeter setting not received, procedure NA.

MISSED APPROACH: Climbing left turn to 6000 direct ENI VORTAC and hold, continue climb-in-hold to 6000.

ASOS	OAKLAND CENTER	UNICOM
119.275	127.8 353.5	123.0 (CTAF) L



CATEGORY	A	B	C	D
CIRCLING	3400-1¼ 2786 (2800-1¼)	3400-1½ 2786 (2800-1½)	3400-3 2786 (2800-3)	

FAF to MAP 5.3 NM					
Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3758
054°	TDZE	1426
	Apt Elev	1439

GPS RWY 6

UPLAND/CABLE (CCB)

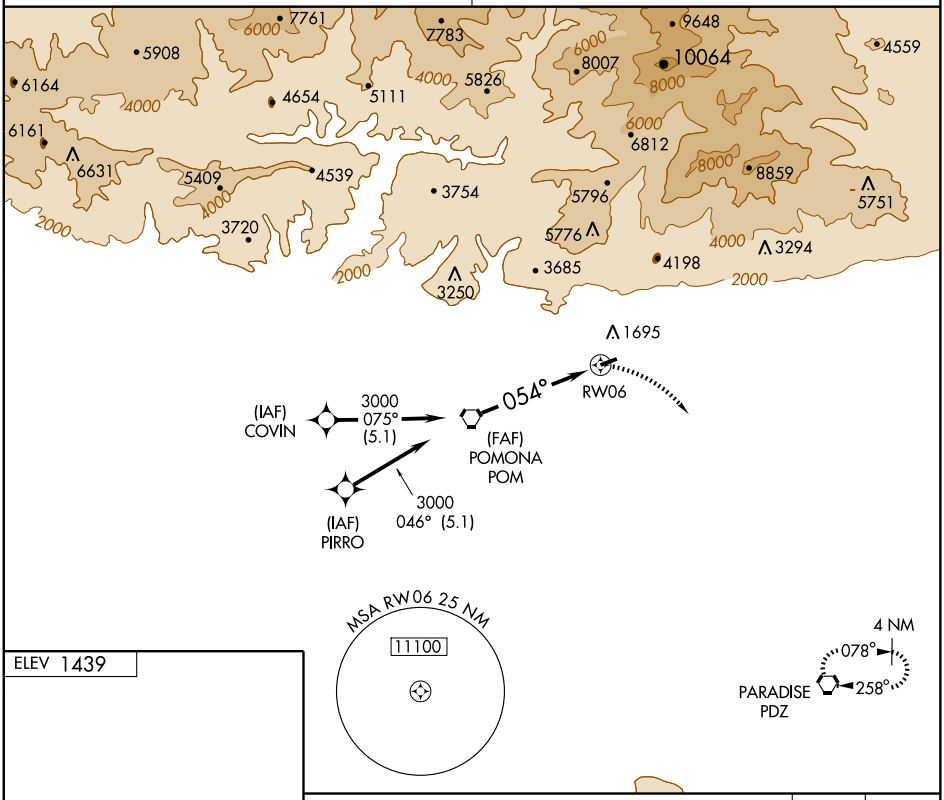
NA

Circling not authorized north of Rwy 6-24.
Use Ontario altimeter setting.

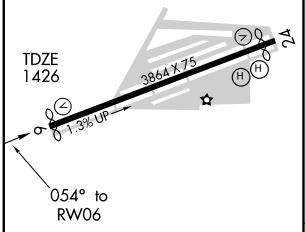
MISSED APPROACH: Climbing right turn to 4000 direct PDZ VORTAC and hold.

SOCAL APP CON
125.5 349.0

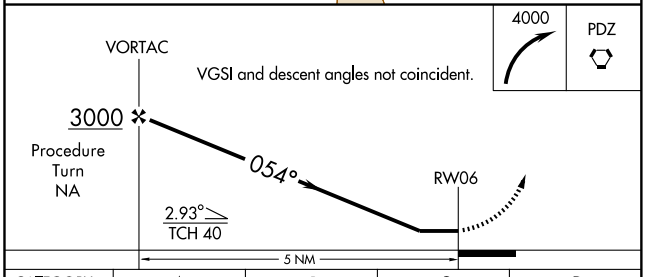
UNICOM
123.0 (CTAF) L



ELEV 1439



MIRL Rwy 6-24 L



CATEGORY	A	B	C	D
S-6	1980-1	554 (600-1)	1980-1½ 554 (600-1½)	NA
CIRCLING	1980-1	541 (600-1)	1980-1½ 541 (600-1½)	NA

SW-3, 14 JAN 2010 to 11 FEB 2010

VORTAC POM	APP CRS	Rwy Idg	N/A
110.4	053°	TDZE	N/A
Chan 41		Apt Elev	1444

VOR-A

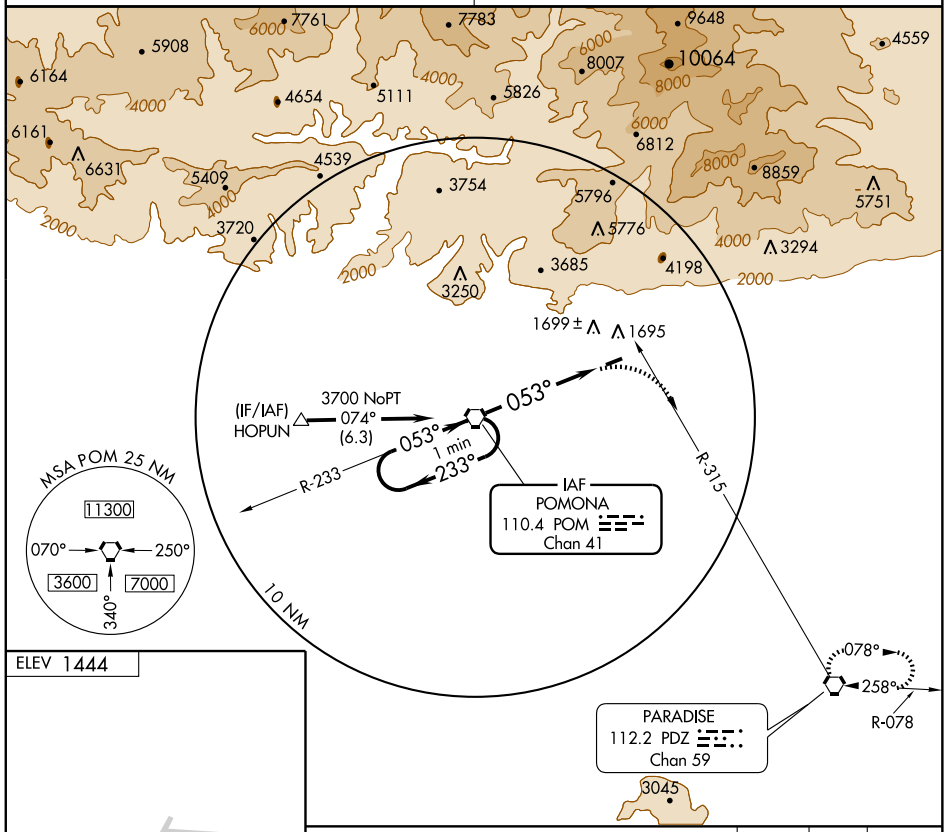
UPLAND/CABLE (CCB)

T
ANA

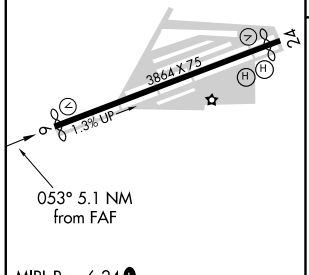
Circling NA north of Rwy 6-24.
Use Ontario altimeter setting.

MISSED APPROACH: Climbing right turn to 4000 via heading 105° and PDZ R-315 to PDZ VORTAC and hold.

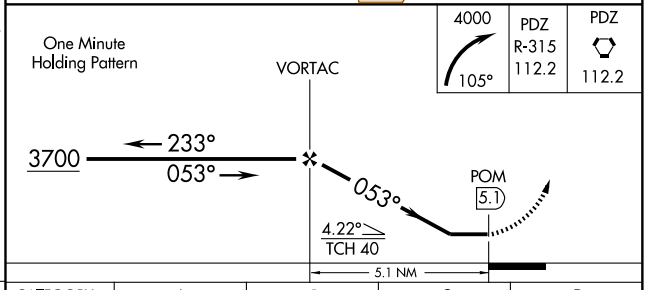
SOCAL APP CON	UNICOM
125.5 349.0	123.0 (CTAF) L



ELEV 1444



MIRL Rwy 6-24 L



FAF to MAP 5.1 NM					
Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

CATEGORY	A	B	C	D
CIRCLING	2240-1 796 (800-1)	2240-1¼ 796 (800-1¼)	2240-2¼ 796 (800-1¼)	NA

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS CH 53502 W20A	APP CRS 199°	Rwy Idg 4700 TDZE 117 Apt Elev 117

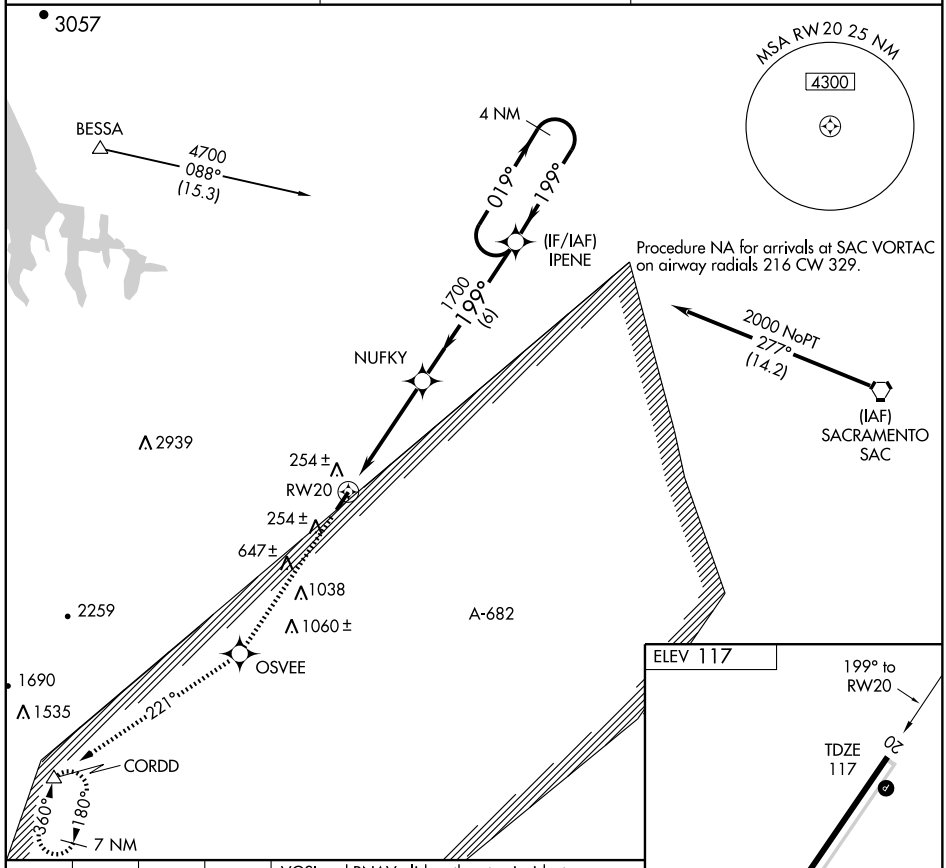
RNAV (GPS) Y RWY 20

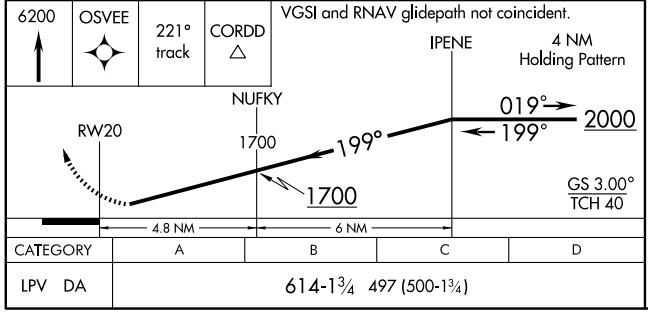
VACAVILLE/ NUT TREE (VCB)

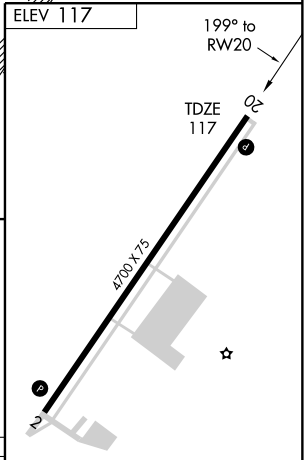
T A W DME/DME RNP-0.3 NA. If local altimeter setting not received, use Davis University altimeter setting and increase DA to 650 feet. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 6200 direct OSVEE and via 221° track to CORDD and hold, continue climb-in-hold to 6200.

ASOS	TRAVIS APP CON	UNICOM
134.75	128.4 291.0	122.7 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	614-1¾ 497 (500-1¾)			

MIRL Rwy 2-20 L
REIL Rwys 2 and 20 L

SW-2, 14 JAN 2010 to 11 FEB 2010

VACAVILLE, CALIFORNIA AL-6094 (FAA)

APP CRS	Rwy Idg	4700
199°	TDZE	117
	Apt Elev	117

RNAV (GPS) Z RWY 20

VACAVILLE/ NUT TREE (VCB)

Circling NA west of Rwy 2-20. DME/DME RNP- 0.3 NA. If local altimeter setting not received, use Davis University altimeter setting and increase all MDAs 40 feet. Visibility reduction by helicopters NA.

MISSED APPROACH: Climbing left turn to 2000 direct IPENE and hold.

ASOS	TRAVIS APP CON	UNICOM
134.75	128.4 291.0	122.7 (CTAF) L

3057

MSA CULEX 25 NM
4300

BESSA
4700
088°
(15.3)

4 NM
019°
199°
(IF/IAF)
IPENE

1700
199°
(6)

(FAF)
NUFKY

(MAP)
CULEX

Procedure NA for arrivals at SAC VORTAC on airway radials 216 CW 329.

2000 NoPT
277°
(14.2)
(IAF)
SACRAMENTO
SAC

2939
254 ±
259 ±
254 ±
647 ±
1038
1060 ±
A-682
2259
1690
1535

ELEV 117
TDZE
117
20
2
4700 X 75

2000
IPENE
IPENE
4 NM
Holding Pattern
NUFKY
CULEX
3.04°
TCH 40
199°
019°
199°
2000
1700
VGSI and descent angles not coincident

0.3 — 4.5 NM — 6 NM

CATEGORY	A	B	C	D
LNAV MDA	520-1 403 (500-1)		520-1¼ 403 (500-1¼)	NA
CIRCLING	560-1 443 (500-1)	580-1 463 (500-1)	580-1½ 463 (500-1½)	NA

MIRL Rwy 2-20 L
REIL Rwys 2 and 20 L

SW-2, 14 JAN 2010 to 11 FEB 2010

SOKOY TWO DEPARTURE

TRAVIS DEP CON
128.4 291.0

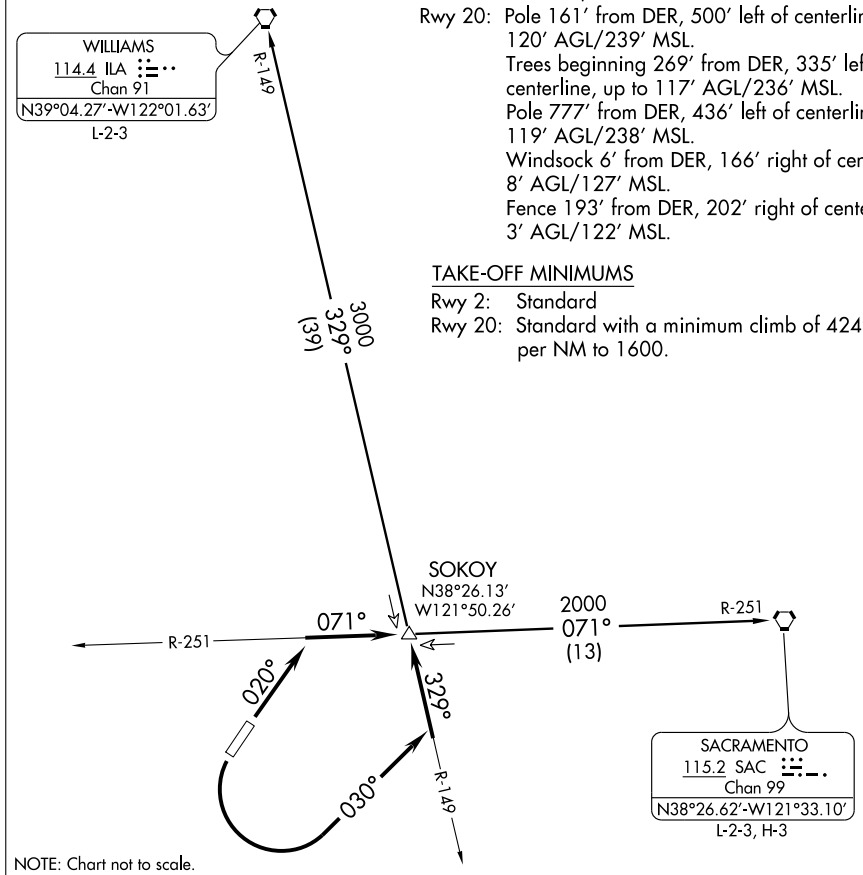
TAKE-OFF OBSTACLE NOTES

Rwy 2: Trees beginning 222′ from DER, 514′ left of centerline, up to 106′ AGL/225′ MSL.
Light pole 337′ from DER, 534′ left of centerline, 28′ AGL/147′ MSL.

Rwy 20: Pole 161′ from DER, 500′ left of centerline, 120′ AGL/239′ MSL.
Trees beginning 269′ from DER, 335′ left of centerline, up to 117′ AGL/236′ MSL.
Pole 777′ from DER, 436′ left of centerline, 119′ AGL/238′ MSL.
Windsock 6′ from DER, 166′ right of centerline, 8′ AGL/127′ MSL.
Fence 193′ from DER, 202′ right of centerline, 3′ AGL/122′ MSL.

TAKE-OFF MINIMUMS

Rwy 2: Standard
Rwy 20: Standard with a minimum climb of 424′ per NM to 1600.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 2: Climb via heading 020°, intercept SAC R-251 to SOKOY INT/ SAC 13 DME.

TAKE-OFF RUNWAY 20: Turn left heading 030°, intercept ILA R-149 to SOKOY INT/ ILA 39 DME.

SACRAMENTO TRANSITION (SOKOY2.SAC): From over SOKOY INT via SAC R-251 to SAC VORTAC.

WILLIAMS TRANSITION (SOKOY2.ILA): From over SOKOY INT via ILA R-149 to ILA VORTAC.

VORTAC SAC	APP CRS	Rwy Idg	N/A
115.2 Chan 99	241°	TDZE	N/A
		Apt Elev	117

VOR/DME-A

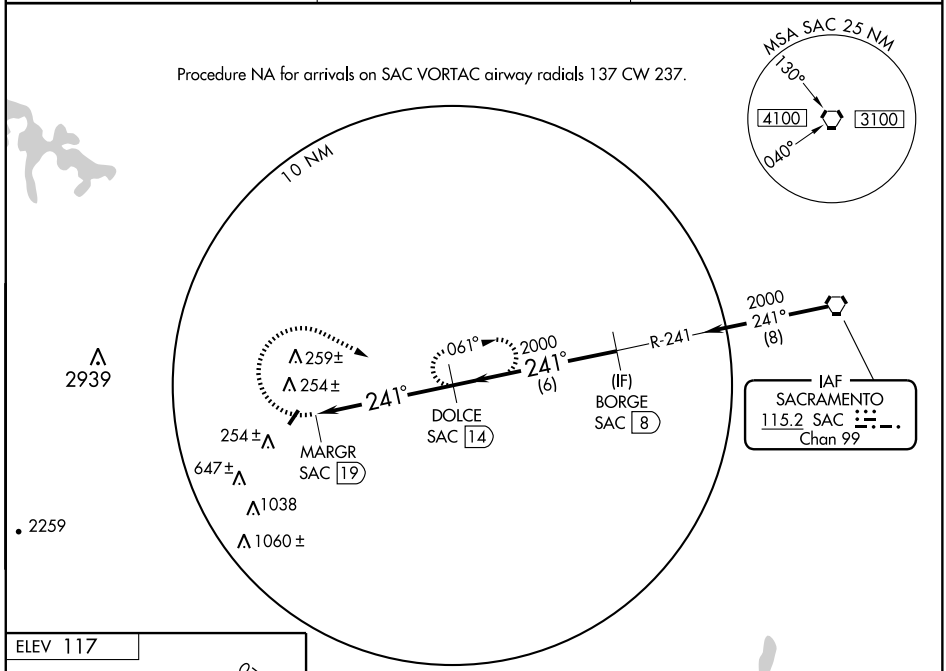
VACAVILLE/NUT TREE (VCB)

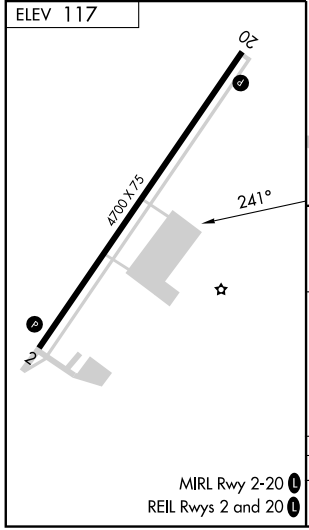
Circling NA west of Rwy 2-20.
When local altimeter setting not received, use Travis AFB altimeter setting and increase all MDA 40 feet and Cat C visibility ¼ mile.

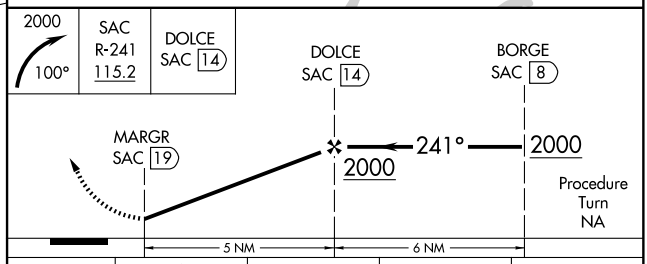
MISSED APPROACH: Climbing right turn to 2000 via heading 100° and SAC R-241 to DOLCE/14 DME and hold.

ASOS	TRAVIS APP CON	UNICOM
134.75	128.4 291.0	122.7 (CTAF) L

Procedure NA for arrivals on SAC VORTAC airway radials 137 CW 237.







MIRL Rwy 2-20 L
REIL Rwys 2 and 20 L

CATEGORY	A	B	C	D
CIRCLING	760-1 643 (700-1)		760-1¾ 643 (700-1¾)	NA

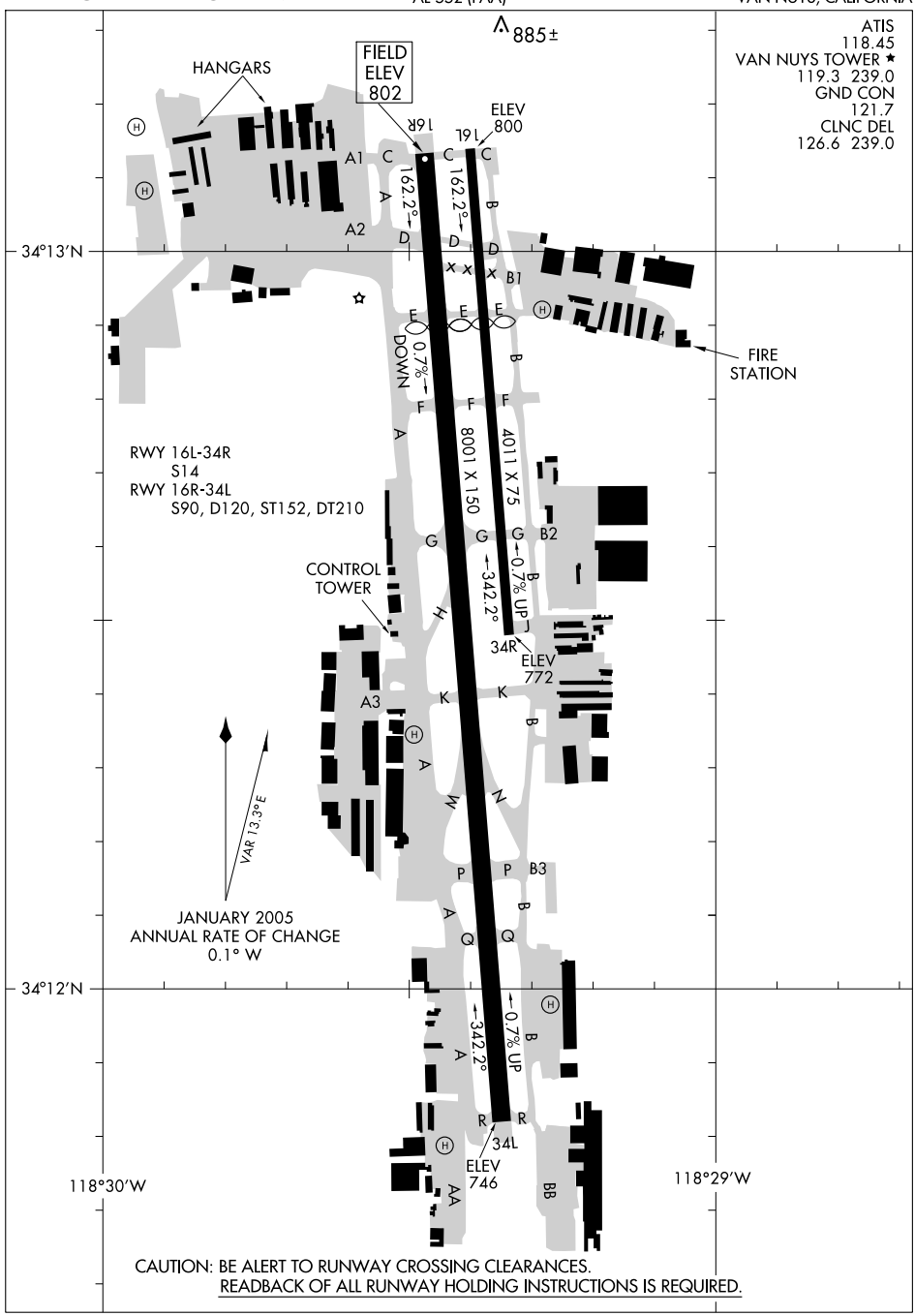
SW-2, 14 JAN 2010 to 11 FEB 2010

AIRPORT DIAGRAM

AL-552 (FAA)

VAN NUYS (VNY)

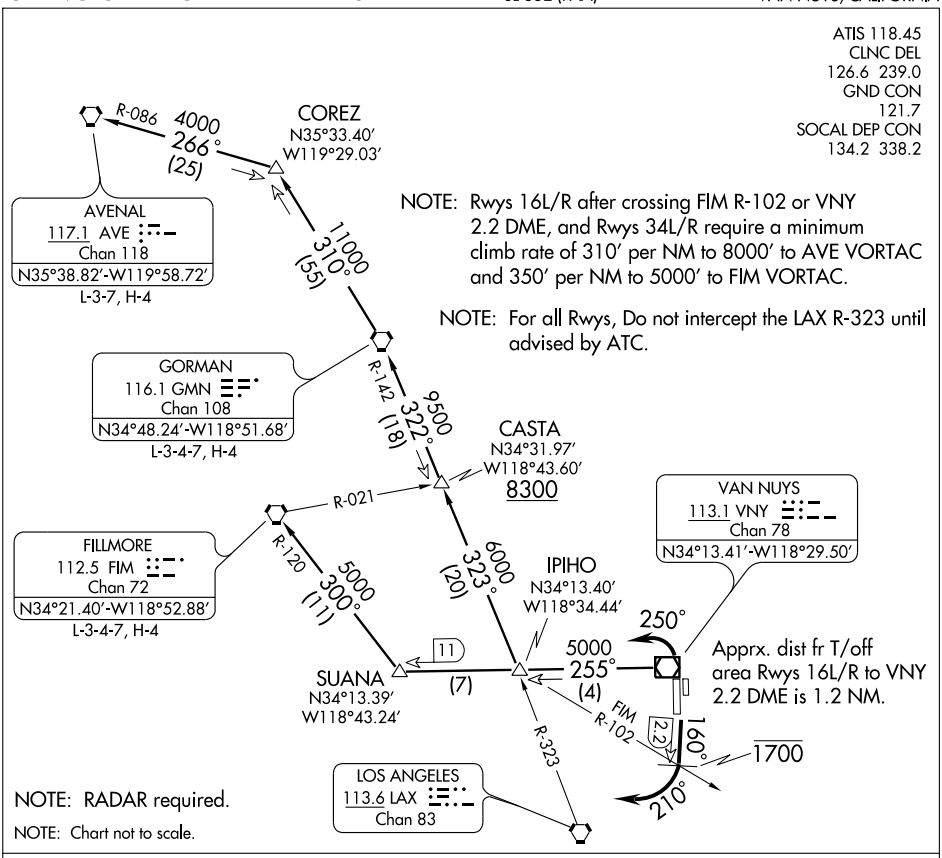
VAN NUYS, CALIFORNIA



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

SW-3, 14 JAN 2010 to 11 FEB 2010

CANOGA EIGHT DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 16L/R: Fly heading 160°, cross 2.2 DME at or below 1700'. Then turn right heading 210° for vectors to VNY R-255 and GMN R-142. Then via (transition) or (assigned route).

TAKE-OFF RUNWAYS 34L/R: Turn left heading 250° after departure end of runway for vectors to VNY R-255 and GMN R-142. Then via (transition) or (assigned route).

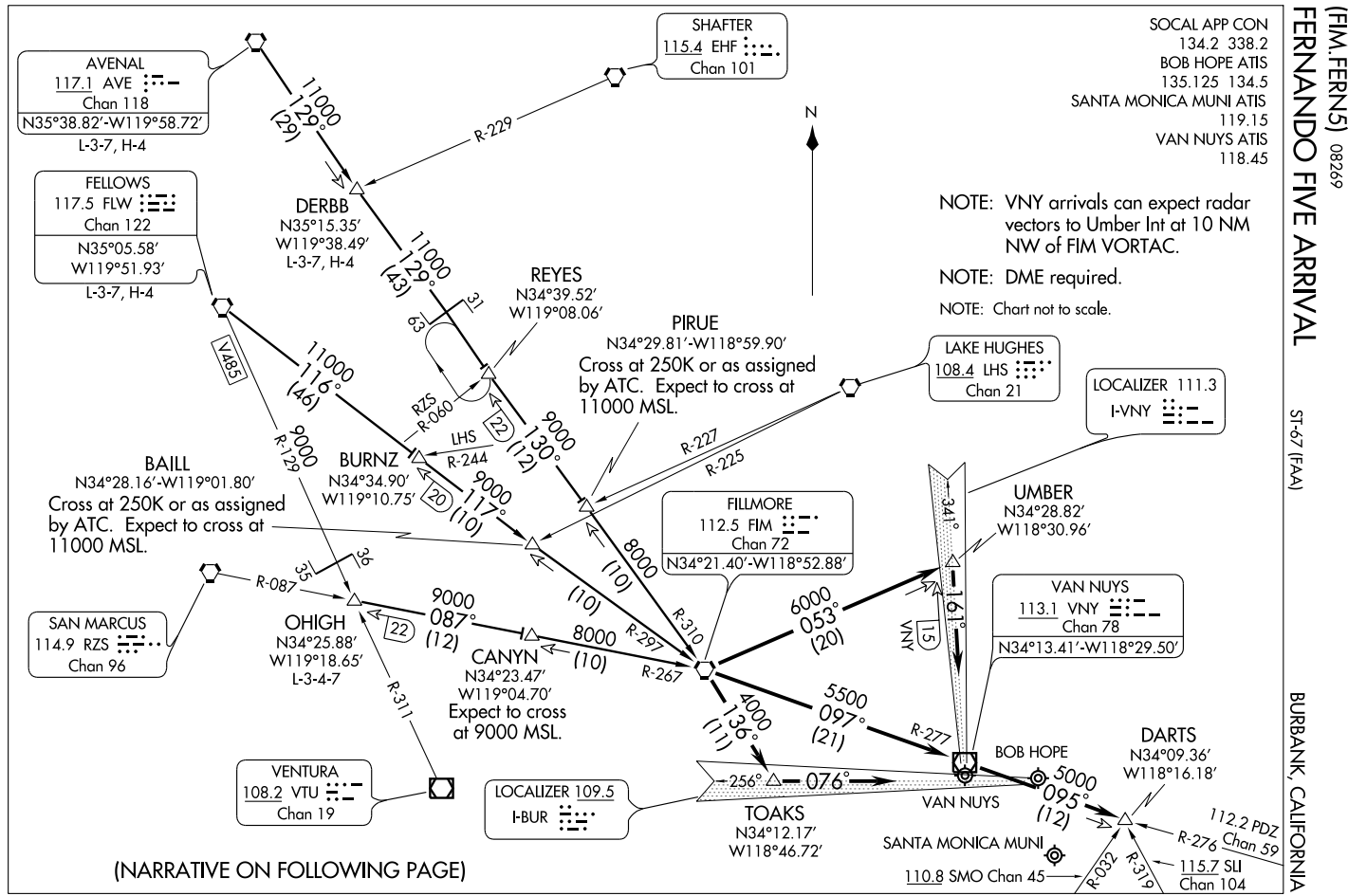
LOST COMMUNICATIONS: If not in contact with departure control within 3 NM: Rwys 16L/R, intercept the LAX R-323. Then as assigned; Rwys 34L/R, intercept the VNY R-255. Then as assigned.

AVENAL TRANSITION (CNOG8.AVE): Proceed along the VNY R-255 to intercept and proceed along the LAX R-323 and GMN R-142 to GMN VORTAC. Then via the GMN R-310 and AVE R-086 to AVE VORTAC. Cross CASTA INT at or above 8300'.

FILLMORE TRANSITION (CNOG8.FIM): Proceed via the VNY R-255 and FIM R-120 to FIM VORTAC.

GORMAN TRANSITION (CNOG8.GMN): Proceed via the VNY R-255 to intercept and proceed via the LAX R-323 and GMN R-142 to GMN VORTAC. Cross CASTA INT at or above 8300'.

SW-3, 14 JAN 2010 to 11 FEB 2010


FERNANDO FIVE ARRIVAL (FIM.FERN5) 08269
ST-67 (FAA)
BURBANK, CALIFORNIA
SOCAL APP CON
134.2 338.2
BOB HOPE ATIS
135.125 134.5
SANTA MONICA MUNI ATIS
119.15
VAN NUYS ATIS
118.45
NOTE: VNY arrivals can expect radar vectors to Umber Int at 10 NM NW of FIM VORTAC.
NOTE: DME required.
NOTE: Chart not to scale.
N
AVENAL
117.1 AVE
Chan 118
N35°38.82'-W119°58.72'
L-3-7, H-4
SHAFTER
115.4 EHF
Chan 101
FELLOWS
117.5 FLW
Chan 122
N35°05.58'
W119°51.93'
L-3-7, H-4
DERBB
N35°15.35'
W119°38.49'
L-3-7, H-4
REYES
N34°39.52'
W119°08.06'
PIRUE
N34°29.81'-W118°59.90'
Cross at 250K or as assigned by ATC. Expect to cross at 11000 MSL.
LAKE HUGHES
108.4 LHS
Chan 21
LOCALIZER 111.3
I-VNY
BAILL
N34°28.16'-W119°01.80'
Cross at 250K or as assigned by ATC. Expect to cross at 11000 MSL.
BURNZ
N34°34.90'
W119°10.75'
FILLMORE
112.5 FIM
Chan 72
N34°21.40'-W118°52.88'
UMBER
N34°28.82'
W118°30.96'
VAN NUYS
113.1 VNY
Chan 78
N34°13.41'-W118°29.50'
SAN MARCUS
114.9 RZS
Chan 96
OHIGH
N34°25.88'
W119°18.65'
L-3-4-7
CANYN
N34°23.47'
W119°04.70'
Expect to cross at 9000 MSL.
VENTURA
108.2 VTU
Chan 19
LOCALIZER 109.5
I-BUR
TOAKS
N34°12.17'
W118°46.72'
BOB HOPE
VAN NUYS
DARTS
N34°09.36'
W118°16.18'
SANTA MONICA MUNI
110.8 SMO Chan 45
112.2 PDZ Chan 59
115.7 SLI Chan 104
11000 129° (29)
R-229
11000 129° (43)
31
63
V485
11000 116° (46)
RZS R-080
LHS R-244
22
9000 130° (12)
9000 R-129
20
9000 117° (10)
R-227
R-225
341°
8000 (10)
6000 053° (20)
161°
15 VNY
R-087
35
36
9000 087° (12)
22
8000 (10)
R-297
R-310
R-267
R-311
4000 136° (11)
5500 097° (21)
R-277
256°
076°
5000 095° (12)
R-276
R-032
R-319
(NARRATIVE ON FOLLOWING PAGE)

ARRIVAL DESCRIPTION

AVENAL TRANSITION (AVE.FERN5): From over AVE VORTAC via AVE R-129 and FIM R-310 to FIM VORTAC. Thence....

DERBB TRANSITION (DERBB.FERN5): From over DERBB INT via AVE R-129 and FIM R-310 to FIM VORTAC. Thence....

FELLOWS TRANSITION (FLW.FERN5): From over FLW VORTAC via FLW R-116 and FIM R-297 to FIM VORTAC. Thence....

OHIGH TRANSITION (OHIGH.FERN5): From over OHIGH INT via FIM R-267 to FIM VORTAC. Thence....

....From over FIM VORTAC:

LANDING BOB HOPE: Via FIM R-136 to TOAKS INT, then via I-BUR localizer. Expect ILS RWY 8.

LANDING SANTA MONICA MUNI: Via FIM R-097 and VNY R-277 to VNY VOR/DME; then via VNY R-095 to DARTS INT. Expect VOR-A approach.

LANDING VAN NUYS RWY 16: Via FIM R-053 to UMBER INT, then via I-VNY localizer. Expect ILS RWY 16R.

LANDING VAN NUYS RWY 34: Via FIM R-136 to TOAKS INT, then via I-BUR localizer. Expect LDA-C; circle to land RWY 34L.

SW-3, 14 JAN 2010 to 11 FEB 2010

GLENDALE NINE DEPARTURE

ATIS 118.45
CLNC DEL
126.6 239.0
GND CON
121.7
SOCAL DEP CON
124.6 298.85

TAKE-OFF MINIMUMS

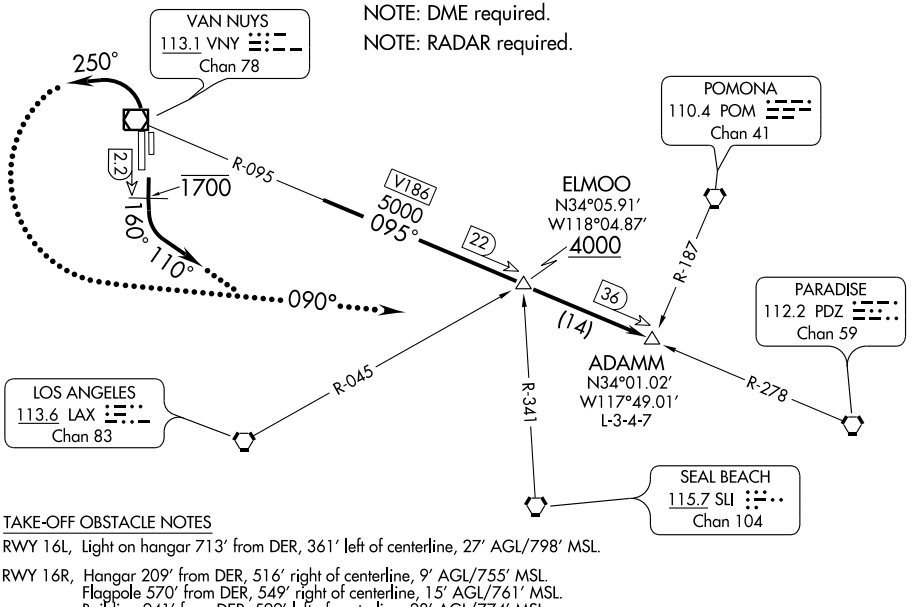
Rwy 16L, Standard with the following minimum climb requirements: ATC climb of 300′ feet per NM to 3800, obstacle climb of 240′ per NM to 2000.

Rwy 16R, Standard with the following minimum climb requirements: ATC climb of 300′ feet per NM to 3800, obstacle climb of 280′ per NM to 2300.

Rwy 34L, 34R, standard with minimum climb of 480′ per NM to 4200.

NOTE: DME required.

NOTE: RADAR required.



TAKE-OFF OBSTACLE NOTES

RWY 16L, Light on hangar 713′ from DER, 361′ left of centerline, 27′ AGL/798′ MSL.

RWY 16R, Hangar 209′ from DER, 516′ right of centerline, 9′ AGL/755′ MSL.
Flagpole 570′ from DER, 549′ right of centerline, 15′ AGL/761′ MSL.
Building 941′ from DER, 599′ left of centerline, 28′ AGL/774′ MSL.
Multiple trees beginning 1129′ from DER, left and right of centerline, up to 72 AGL/818′ MSL.

RWY 34L, Blast fence 169′ from DER, 405′ left of centerline, 10′ AGL/812′ MSL,
Obstruction light on blast fence, 241′ from DER, 195′ left of centerline, 17′ AGL/819′ MSL
Multiple trees beginning 325′ from DER, 549′ right of centerline, up to 119′ AGL/921′ MSL.
Railroad 305′ from DER, 369′ right of centerline, 30′ AGL/832′ MSL.
Building 424′ from DER, 589′ right of centerline, 29′ AGL/831′ MSL.
Antenna on building 450′ from DER, 462′ left of centerline, 15′ AGL/817′ MSL.
Pole 1376′ from DER, 779′ left of centerline, 68′ AGL/870′ MSL.

RWY 34R, Railroad 305′ from DER, 5′ right of centerline, 33′ AGL/832′ MSL.
Multiple trees beginning 325′ from DER, 174′ right of centerline, up to 122′ AGL/921′ MSL.
Building 424′ from DER, 214′ right of centerline, 32′ AGL/831′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 16L/R: Climb via heading 160° to cross VNY 2.2 DME at or below 1700′. Then climbing left turn heading 110° for vectors to VNY R-095 to ADAMM INT. Then via (assigned route).

TAKE-OFF RUNWAYS 34L/R: Climbing left turn via heading 250° for vectors to VNY R-095 to ADAMM INT. Then via (assigned route).

LOST COMMUNICATIONS: If not in contact with departure control within 3 NM, turn left heading 090° to intercept VNY R-095 to ADAMM INT, maintain 5000 or as assigned.

LOC I-VNY	APP CRS	Rwy Idg	6570
111.3	161°	TDZE	793
		Apt Elev	802

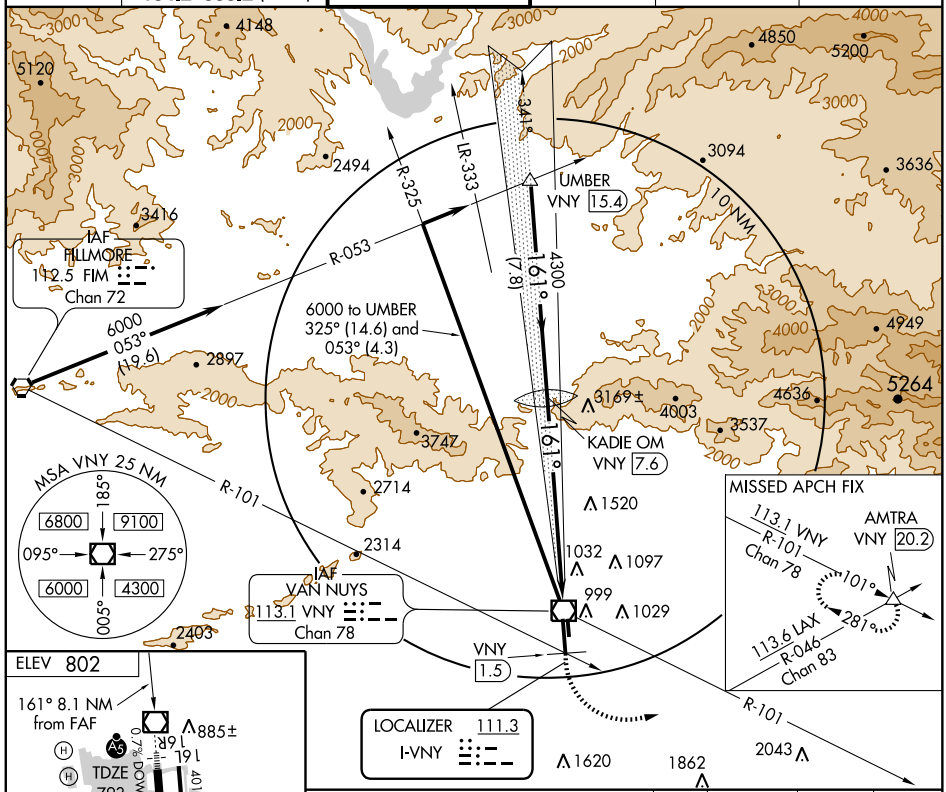
ILS RWY 16R
VAN NUYS (VNY)

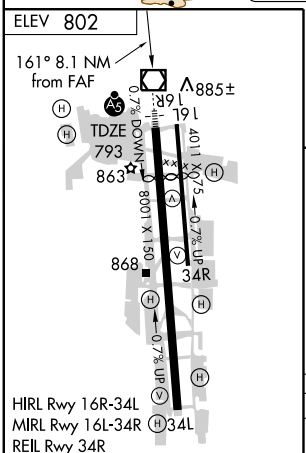
Inoperative table does not apply.
Circling requires descent on GS to MDA.
Visibility reduction by helicopters NA.

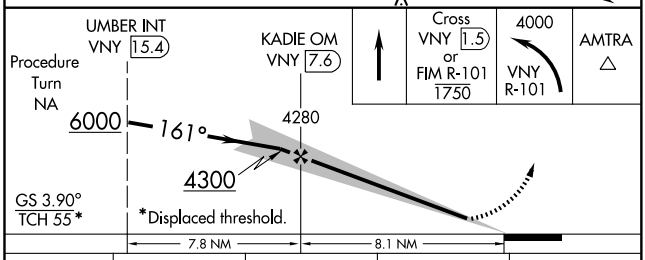
MALSR

MISSED APPROACH: Climb to cross VNY 1.5 DME or FIM R-101 at or below 1750, then climbing left turn to 4000 via VNY VOR/DME R-101 to AMTRA INT/VNY 20.2 DME and hold.

ATIS	SOCAL APP CON	VAN NUYS TOWER★	GND CON	CLNC DEL	UNICOM
118.45	120.4 360.6 (NORTH) 134.2 338.2 (WEST)	119.3 (CTAF) 239.0	121.7	126.6 239.0	122.95







FAF to MAP 8.1 NM					
Knots	60	90	120	150	180
Min:Sec	8:06	5:24	4:03	3:14	2:42

CATEGORY	A	B	C	D
S-ILS 16R	1119-1 326 (400-1)			1143-1 350 (400-1)
APPROACH NOT AUTHORIZED WHEN GLIDE SLOPE NOT USED				
CIRCLING	1300-1 498 (500-1)		1340-1½ 538 (600-1½)	1360-2 558 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC I-BUR	APP CRS	Rwy Idg	N/A
109.5	076°	TDZE	N/A
		Apt Elev	799

LDA-C
VAN NUYS (VNY)

MISSED APPROACH: Climb to 4000 via VNY R-101 to AMTRA INT and hold.

ATIS	SOCAL APP CON	VAN NUYS TOWER★	GND CON	CLNC DEL	UNICOM
118.45	120.4 360.6 (NORTH) 134.2 338.2 (WEST)	119.3 (CTAF) 239.0	121.7	126.6 239.0	122.95

IAF FILLMORE 112.5 FIM Chan 72
4000 NoPT 136° (10.5)
R-136
10 NM
VAN NUYS 113.1 VNY Chan 78
LOCALIZER 109.5 I-BUR
(IAF) SILEX INT
4000 242° (6.1)
3300 076° (8.4)
076° 1 min 256°
076°
256°
4100 NoPT 054° (14.5)
TOAKS INT
IAF VENTURA 108.2 VTU Chan 19
BUDDE OM/INT
R-164
R-316
R-101
LMM VINEE 253 UR
MISSED APCH FIX
113.1 VNY R-101 Chan 78
AMTRA VNY 20.2
101°
281°
113.6 LAX R-046 Chan 83
LOS ANGELES 113.6 LAX Chan 83
4000 316° (18.3)
MSA VNY 25 NM
185°
6800
9100
095°
275°
6000
4300
500°
2897 2000 3747 2714 2314 2403 2824 2908 2469 2126 1620 1862 2043 3111 1520 1032 1097 999 1029 3296 4636 4003 3537 3892 3000 4000

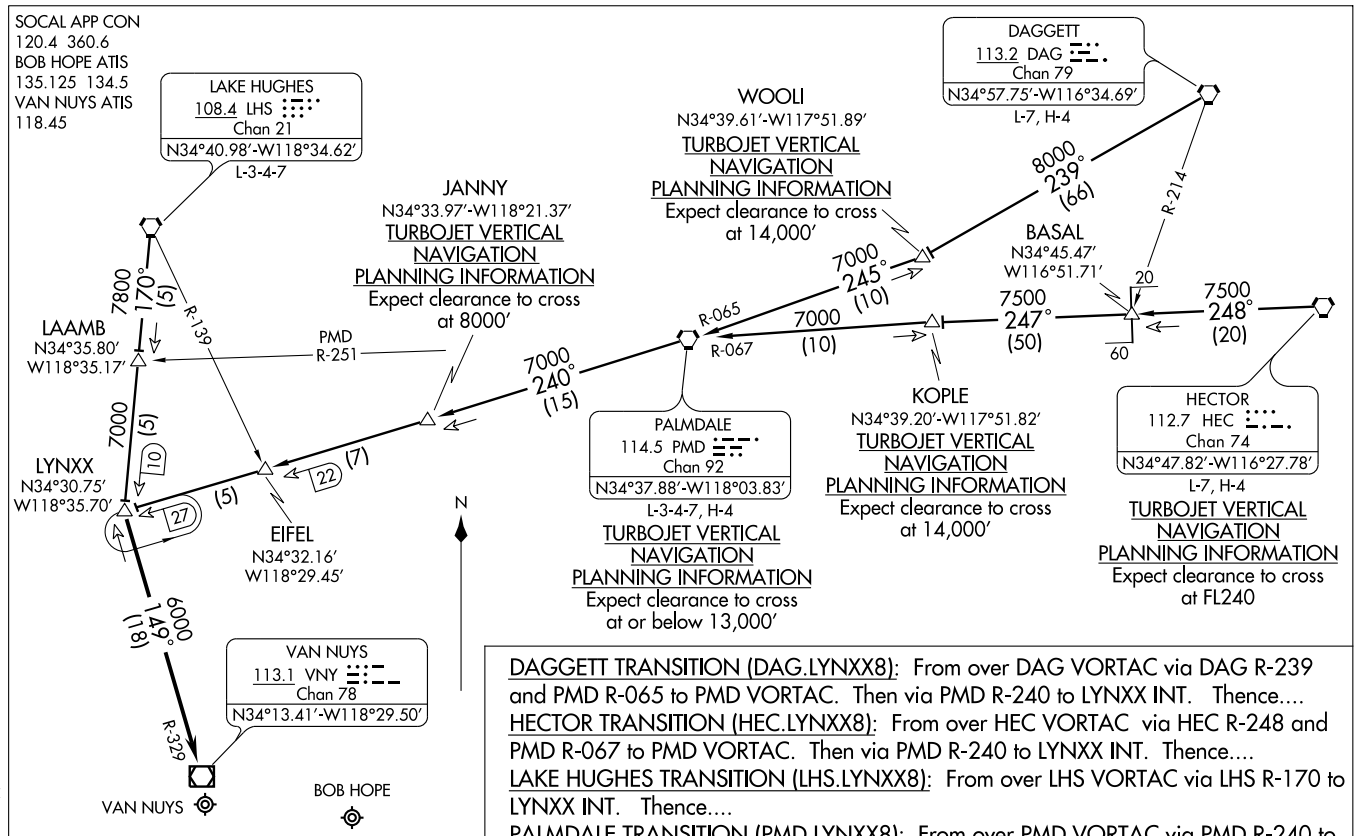
ELEV 799
885±
16L
34R
34L
4011 X 75
8001 X 150
0.7% DOWN
0.7% up
863
868
076° 6 NM from FAF
BUDDE OM/INT
HIRL Rwy 16R-34L
MIRL Rwy 16L-34R
REIL Rwy 34R

One Minute Holding Pattern
SILEX INT
4000 VNY R-101
AMTRA
3500 256° 076°
3300 076°
BUDDE OM/INT
Disregard glide slope indications
6 NM

FAF to MAP 6 NM					
Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00

CATEGORY	A	B	C	D
CIRCLING	2600-1¼ 1801 (1900-1¼)	2600-1½ 1801 (1900-1½)	2600-3	1801 (1900-3)

SW-3, 14 JAN 2010 to 11 FEB 2010



DAGGETT TRANSITION (DAG.LYNXX8): From over DAG VORTAC via DAG R-239 and PMD R-065 to PMD VORTAC. Then via PMD R-240 to LYNXX INT. Thence....

HECTOR TRANSITION (HEC.LYNXX8): From over HEC VORTAC via HEC R-248 and PMD R-067 to PMD VORTAC. Then via PMD R-240 to LYNXX INT. Thence....

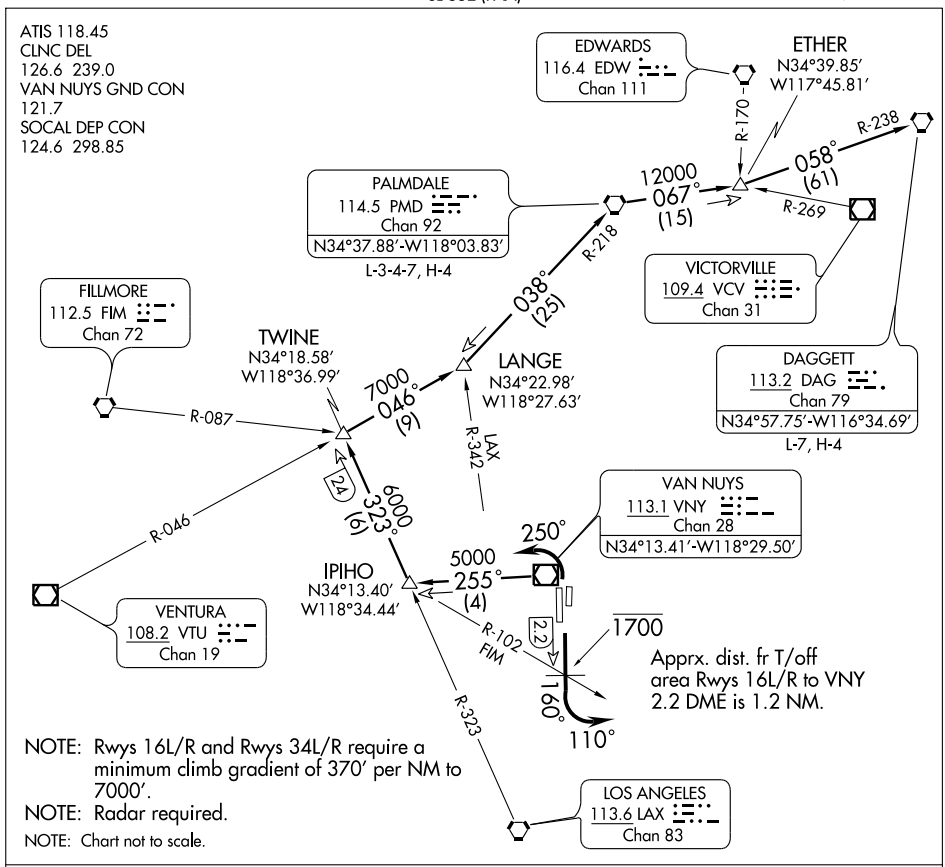
LAKE HUGHES TRANSITION (LHS.LYNXX8): From over LHS VORTAC via LHS R-170 to LYNXX INT. Thence....

PALMDALE TRANSITION (PMD.LYNXX8): From over PMD VORTAC via PMD R-240 to LYNXX INT. Thence....

....From over LYNXX INT via VNY R-329 to VNY VOR/DME. Expect radar vectors to final approach course after VNY VOR/DME.

NEWHALL SIX DEPARTURE

SL-552 (FAA)



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 16L/R: Fly heading 160° to cross FIM R-102 or VNY 2.2 DME at or below 1700′. Then turn left heading 110° for vectors to VNY R-255 and LAX R-323. Then via (transition) or (assigned route).

TAKE-OFF RUNWAYS 34L/R: Turn left heading 250° after departure end of runway for vectors to VNY R-255 and LAX R-323. Then via (transition) or (assigned route).

LOST COMMUNICATIONS: If not in contact with Departure Control within 3 NM: Rwys 16L/R: Intercept the LAX R-323, then as assigned; Rwys 34L/R: Intercept the VNY R-255, then as assigned.

DAGGETT TRANSITION (NUAL6.DAG): Proceed on the VNY R-255 to intercept and proceed via the LAX R-323 and the VTU R-046 to LANGE INT; then the PMD R-218 to the PMD VORTAC. Then via the PMD R-067 and the DAG R-238 to DAG VORTAC.

PALMDALE TRANSITION (NUAL6.PMD): Proceed on the VNY R-255 to intercept and proceed via the LAX R-323 and the VTU R-046 to LANGE INT; then via the PMD R-218 to the PMD VORTAC.

VOR/DME VNY	APP CRS	Rwy Idg	N/A
113.1	075°	TDZE	N/A
Chan 78		Apt Elev	802

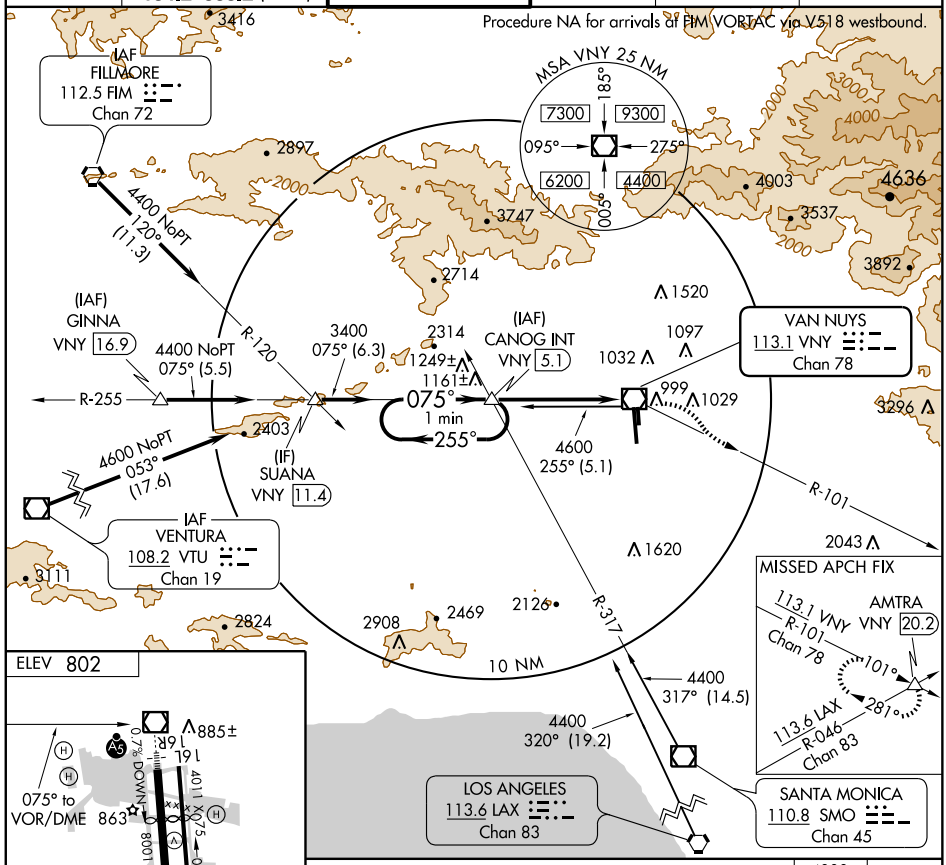
VOR-A
VAN NUYS (VNY)

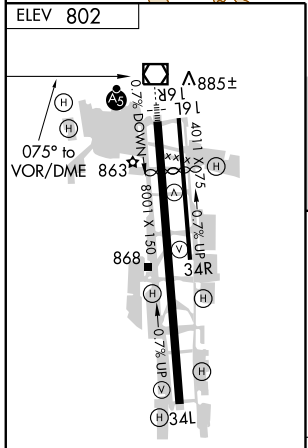
When local altimeter setting not received, use Burbank altimeter setting and increase all MDAs 20 feet.

MISSED APPROACH: Climbing right turn 4000 via VNY R-101 to AMTRA INT/ 20.2 DME and hold.

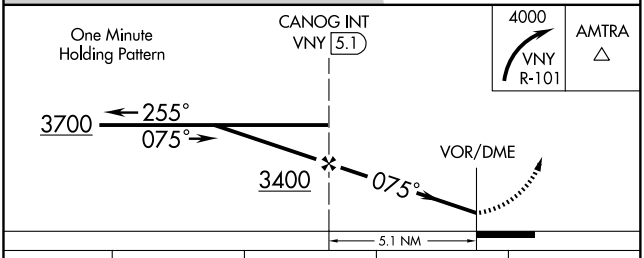
ATIS	SOCAL APP CON	VAN NUYS TOWER★	GND CON	CLNC DEL	UNICOM
118.45	120.4 360.6 (NORTH) 134.2 338.2 (WEST)	119.3 (CTAF) 239.0	121.7	126.6 239.0	122.95

Procedure NA for arrivals at FIM VORTAC via V518 westbound.





HIRL Rwy 16R-34L
MIRL Rwy 16L-34R
REIL Rwy 34R



CATEGORY	A	B	C	D
CIRCLING	1500-1	698 (700-1)	1500-2 698 (700-2)	1500-2 ¼ 698 (700-2¼)

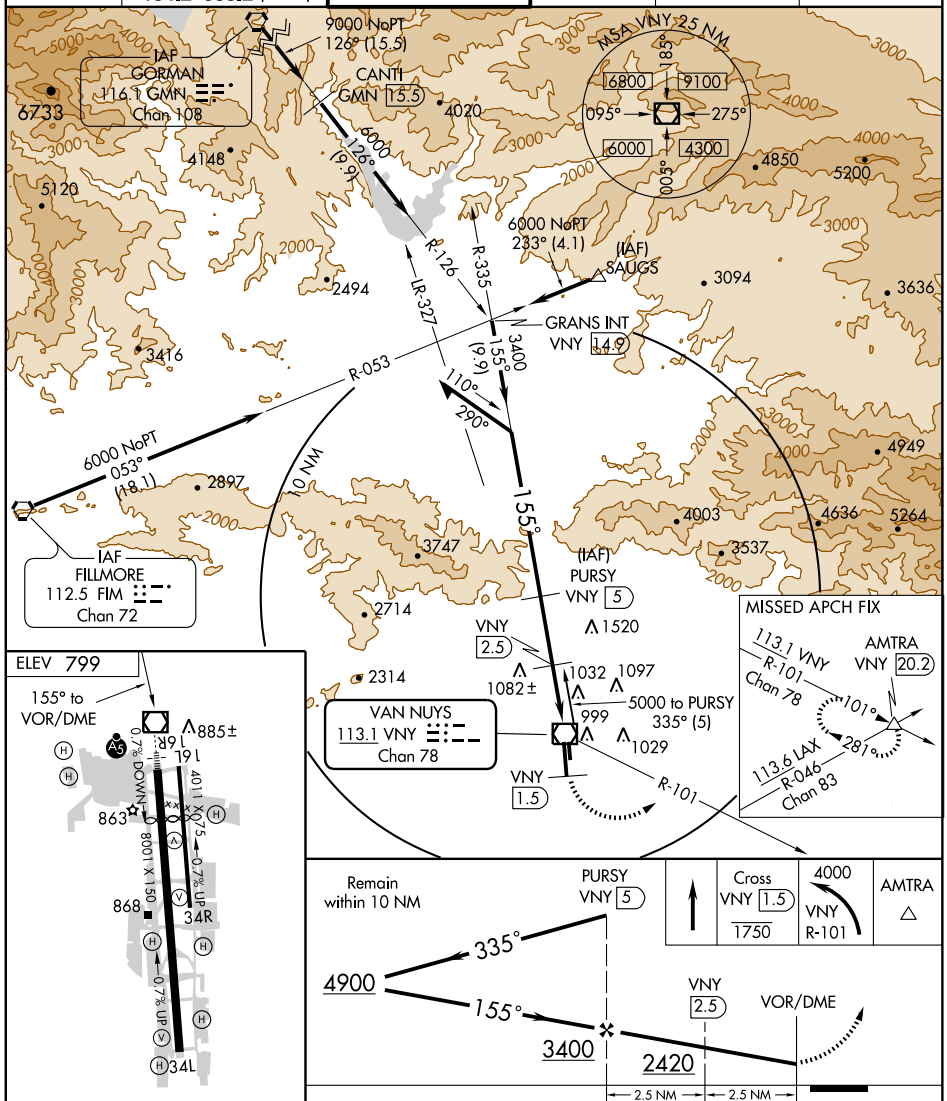
SW-3, 14 JAN 2010 to 11 FEB 2010

VOR/DME VNY	APP CRS	Rwy Idg	N/A
113.1	155°	TDZE	N/A
Chan 78		Apt Elev	799

VOR/DME or GPS-B
VAN NUYS (VNY)

MISSED APPROACH: Climb to cross VNY 1.5 DME at or below 1750, then climbing left turn to 4000 via VNY R-101 to AMTRA INT and hold.

ATIS	SOCAL APP CON	VAN NUYS TOWER★	GND CON	CLNC DEL	UNICOM
118.45	120.4 360.6 (NORTH) 134.2 338.2 (WEST)	119.3 (CTAF) 239.0	121.7	126.6 239.0	122.95



HIRL Rwy 16R-34L
MIRL Rwy 16L-34R
REIL Rwy 34R

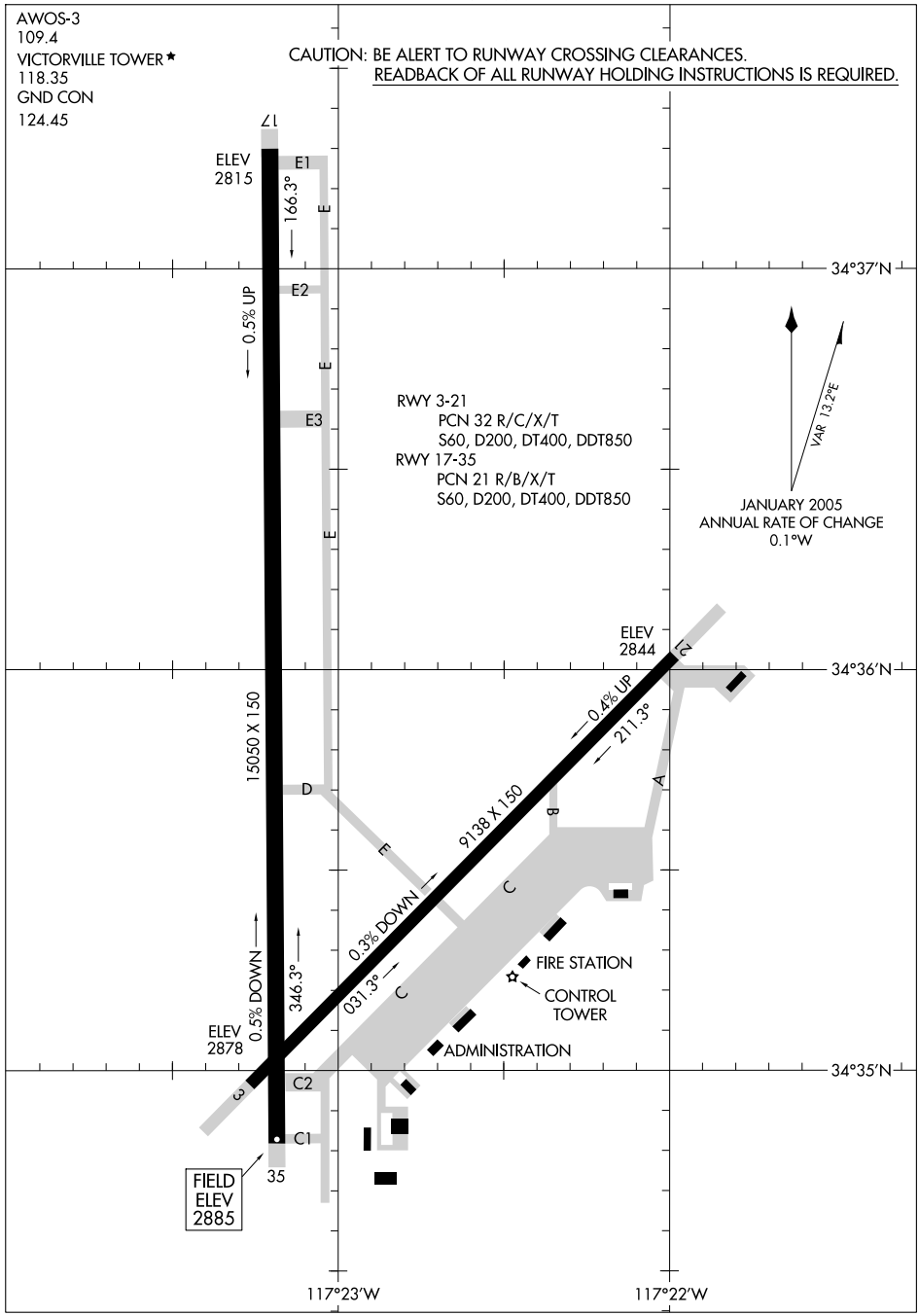
CATEGORY	A	B	C	D
CIRCLING	1300-1	501 (600-1)	1340-1½ 541 (600-1½)	1360-2 561 (600-2)

SW-3, 14 JAN 2010 to 11 FEB 2010

09239

AIRPORT DIAGRAM

VICTORVILLE/SOUTHERN CALIFORNIA LOGISTICS (VCV)
AL-794 (FAA)
VICTORVILLE, CALIFORNIA



SW-3, 14 JAN 2010 to 11 FEB 2010

VICTORVILLE, CALIFORNIA AL-794 (FAA)

LOC I-VCV	APP CRS	Rwy Idg	15050
108.75	166°	TDZE	2825
		Apt Elev	2885

ILS or LOC RWY 17

VICTORVILLE/ SOUTHERN CALIFORNIA LOGISTICS (VCV)

When local altimeter setting not received, use Edwards AFB altimeter setting and increase all DA and MDA 160 feet. Increase all visibilities ½ mile. DME from VCV VOR/DME. Simultaneous reception of I-VCV and VCV DME required.

MISSED APPROACH: Climb to 3500, then climbing right turn to 6000 via heading 300° and VCV VOR/DME R-269 to ETHER INT and hold.

AWOS-3	JOSHUA APP CON	VICTORVILLE TOWER ★	GND CON
109.4	124.55 363.0	118.35 (L)	124.45

DME or RADAR REQUIRED

R-2515

BUCKHORN MOA

(IF) SCCAT VCV 12.2

R-346 346° LR-356

5200 VCV 12.2 Arc

BYTHE VCV 12.2

R-011

166° (6.1) 4300

SUZZQ VCV 6.1 RADAR

VICTORVILLE 109.4 VCV Chan 31

VCV 12.2 Arc 6600

4896

5273

3450

R-269

3098±

4715

3897

3168±

R-089

(IAF) APLES VCV 12.2

10 NM

3288

LOCALIZER 108.75 I-VCV

MSA VCV 25 NM

7600

090° 270°

11300 10000

360°

ALTERNATE MISSED APCH FIX

116.4 EDW R-169 Chan 111

114.5 PMD R-081 Chan 92

081° 261°

ZOREN PMD 15

Procedure NA for arrivals at APLES via V394 and V442 southwest bound.

MISSED APCH FIX

116.4 EDW R-170 Chan 111

ETHER VCV 19

R-067 269° 089°

109.4 VCV R-269 Chan 31

114.5 PMD Chan 92

ELEV 2885

166° 4.4 NM from FAF

2829±

TDZE 2825

0.5% UP

15050 X 150

0.5% DOWN

9138 X 150

0.4% UP

0.3% DOWN

TWR

21

35

REIL Rwys 17 and 35

HIRL Rwys 3-21 and 17-35 (L)

SCCAT VCV 12.2

Procedure Turn NA

SUZZQ VCV 6.1 RADAR

3500	6000	VCV R-269 109.4	ETHER
↑	300°		△

VGSI and ILS glidepath not coincident

5200

166°

4300

VCV 1.7

4300

GS 3.00°

TCH 54

6.1 NM 4.4 NM

CATEGORY	A	B	C	D
S-ILS 17	3025/40 200 (200-¾)			
S-LOC 17	3080/50 255 (200-1)			
CIRCLING	3360-1 475 (500-1)	3420-1 535 (600-1)	3420-1½ 535 (600-1½)	3580-2¼ 695 (700-2¼)

FAF to MAP 4.4 NM

Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28

SW-3, 14 JAN 2010 to 11 FEB 2010

WAAS CH 77523 W17A	APP CRS 166°	Rwy Idg 15050 TDZE 2825 Apt Elev 2885

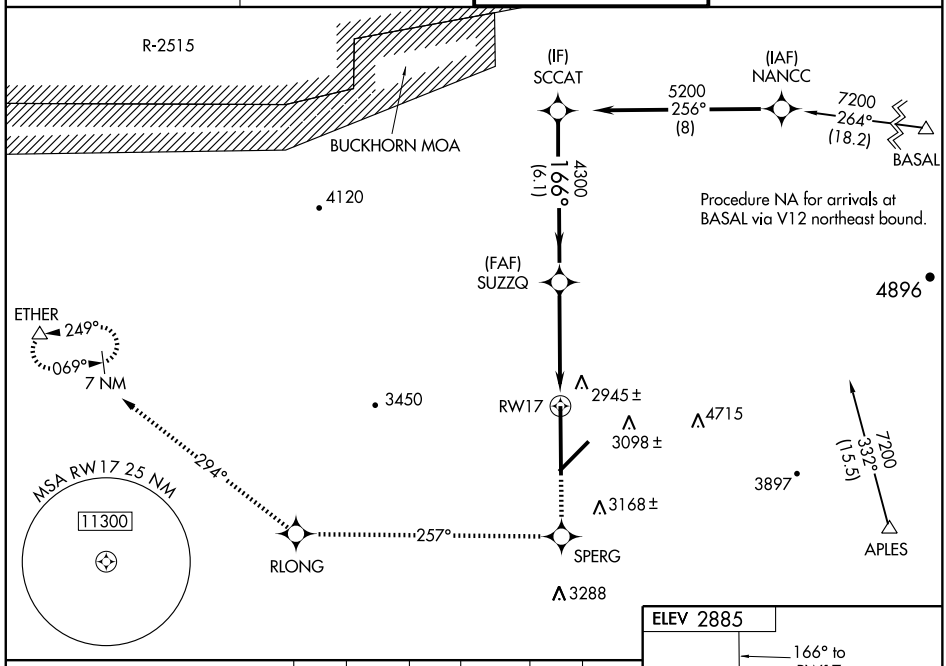
RNAV (GPS) RWY 17

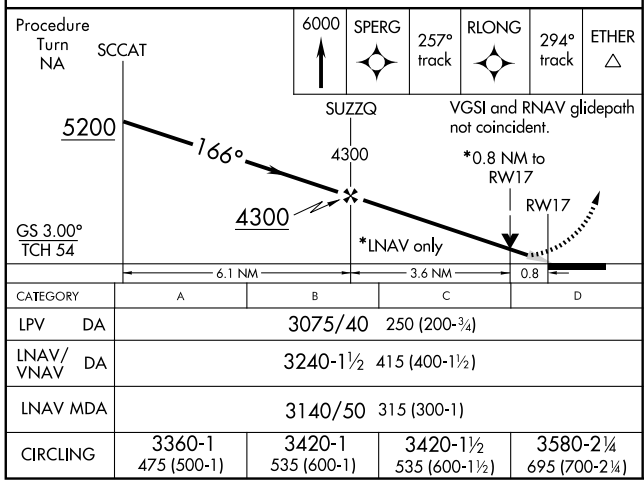
VICTORVILLE/ SOUTHERN CALIFORNIA LOGISTICS (VCV)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 43°C (109°F).
DME/DME RNP-0.3 NA.
When local altimeter setting not received, use Edwards AFB altimeter setting and increase all DA and MDA 160 feet. Increase all visibilities ¾ mile.
VDP and Baro-VNAV NA when using Edwards AFB altimeter setting.

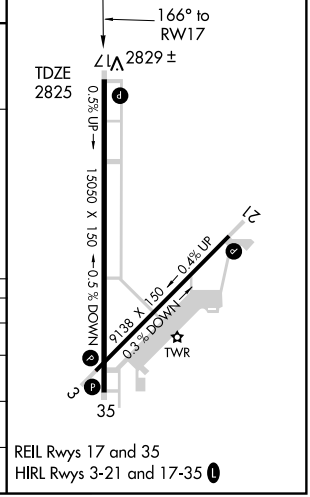
MISSED APPROACH: Climb to 6000 direct SPERG and via 257° track to RLONG and via 294° track to ETHER and hold.

AWOS-3	JOSHUA APP CON	VICTORVILLE TOWER *	GND CON
109.4	124.55 363.0	118.35 (L)	124.45





CATEGORY	A	B	C	D
LPV DA	3075/40 250 (200-¾)			
LNAV/VNAV DA	3240-1½ 415 (400-1½)			
LNAV MDA	3140/50 315 (300-1)			
CIRCLING	3360-1 475 (500-1)	3420-1 535 (600-1)	3420-1½ 535 (600-1½)	3580-2¼ 695 (700-2¼)



REIL Rwys 17 and 35
HIRL Rwys 3-21 and 17-35 (L)

VOR/DME VCV	APP CRS	Rwy Idg	15050
109.4	170°	TDZE	2825
Chan 31		Apt Elev	2885

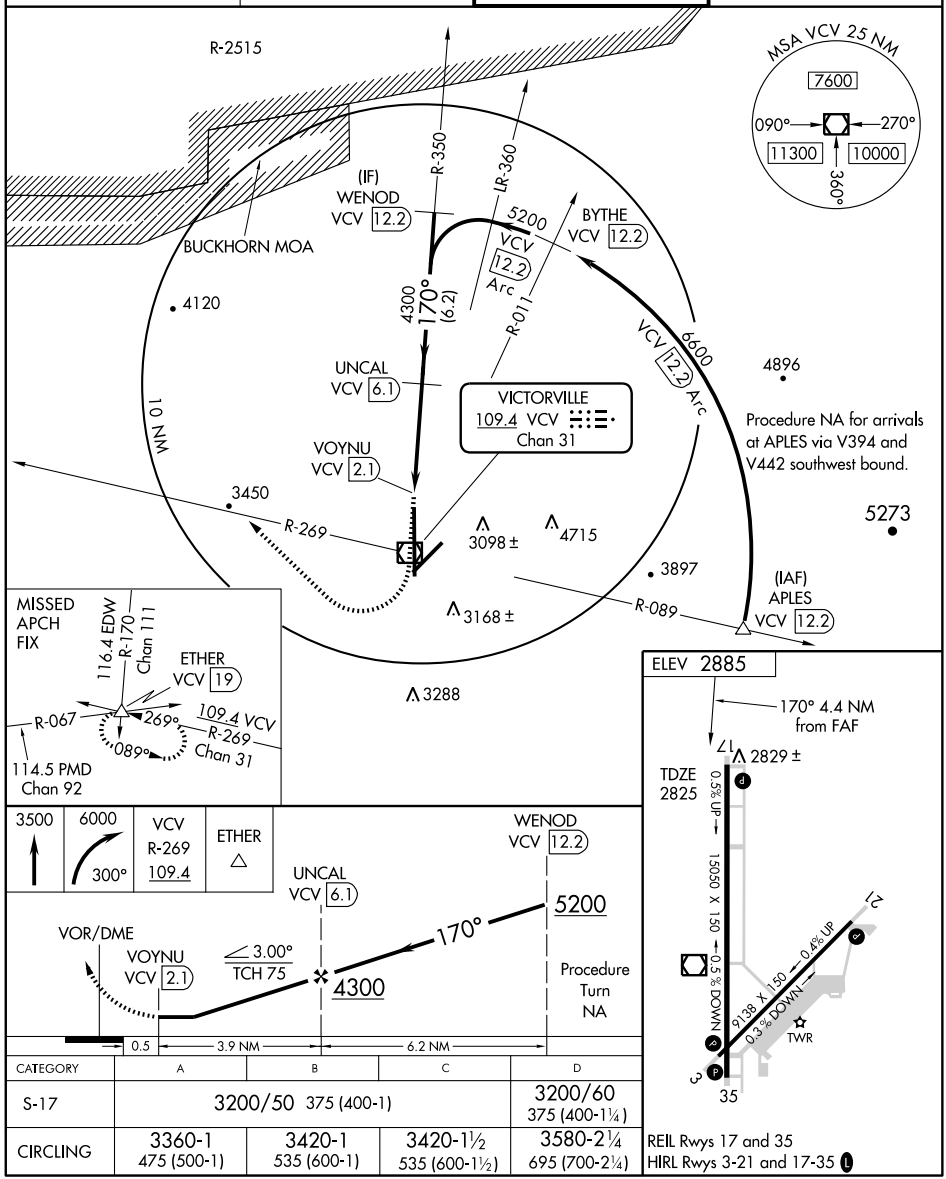
VOR/DME RWY 17

VICTORVILLE/ SOUTHERN CALIFORNIA LOGISTICS (VCV)

When local altimeter setting not received, use Edwards AFB altimeter setting and increase all MDA 160 feet. Increase all visibilities ½ mile.

MISSED APPROACH: Climb to 3500, then climbing right turn to 6000 via heading 300° and VCV R-269 to ETHER INT and hold.

AWOS-3	JOSHUA APP CON	VICTORVILLE TOWER ★	GND CON
109.4	124.55 363.0	118.35 L	124.45



CATEGORY	A	B	C	D
S-17	3200/50 375 (400-1)			3200/60 375 (400-1¼)
CIRCLING	3360-1 475 (500-1)	3420-1 535 (600-1)	3420-1½ 535 (600-1½)	3580-2¼ 695 (700-2¼)

REIL Rwys 17 and 35
HIRL Rwys 3-21 and 17-35 L

SW-3, 14 JAN 2010 to 11 FEB 2010

LOC I-VIS	APP CRS	Rwy Idg	5635
108.5	301°	TDZE	295
		Apt Elev	295

ILS or LOC/DME RWY 30

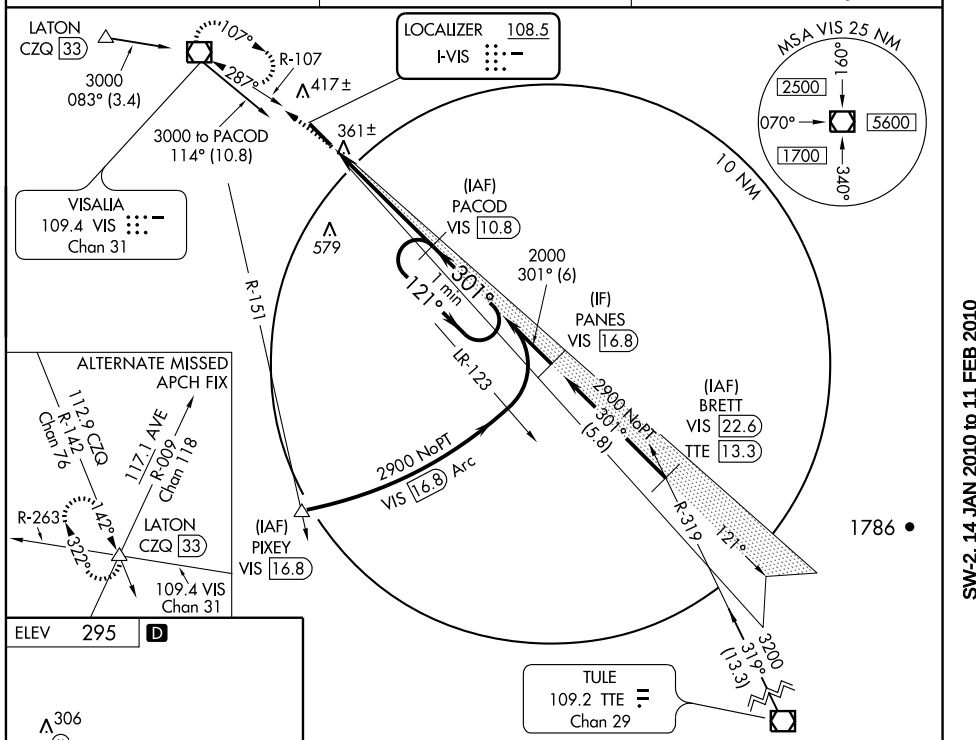
VISALIA MUNI (VIS)

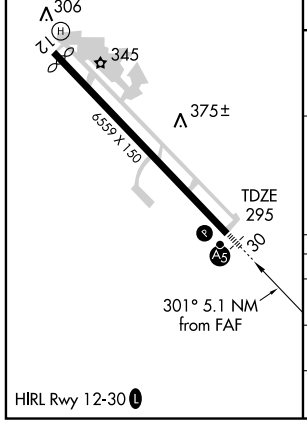
When local altimeter setting not received, use Hanford altimeter setting and increase all DA/MDA 40 feet.
For inoperative MALSR, increase local altimeter setting S-LOC Cat D visibility to 1 mile.
DME from VIS VOR/DME. Simultaneous reception of I-VIS and VIS DME required.

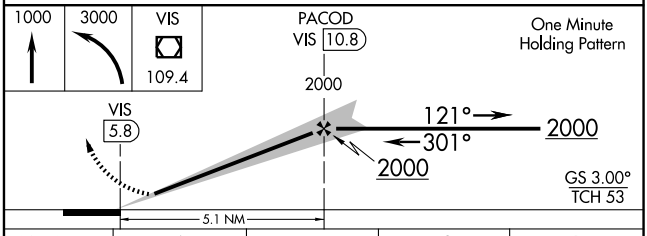
MALSR

MISSED APPROACH: Climb to 1000 then climbing left turn to 3000 direct VIS VOR/DME and hold, continue climb-in-hold to 3000.

AWOS-3	FRESNO APP CON	UNICOM
119.925	118.5	123.05 (CTAF) L







CATEGORY	A	B	C	D
S-ILS 30	495-½ 200 (200-½)			
S-LOC 30	620-½ 325 (400-½)			620-¾ 325 (400-¾)
CIRCLING	720-1 425 (500-1)	760-1 465 (500-1)	760-1½ 465 (500-1½)	860-2 565 (600-2)

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	5635
129°	TDZE	294
	Apt Elev	295

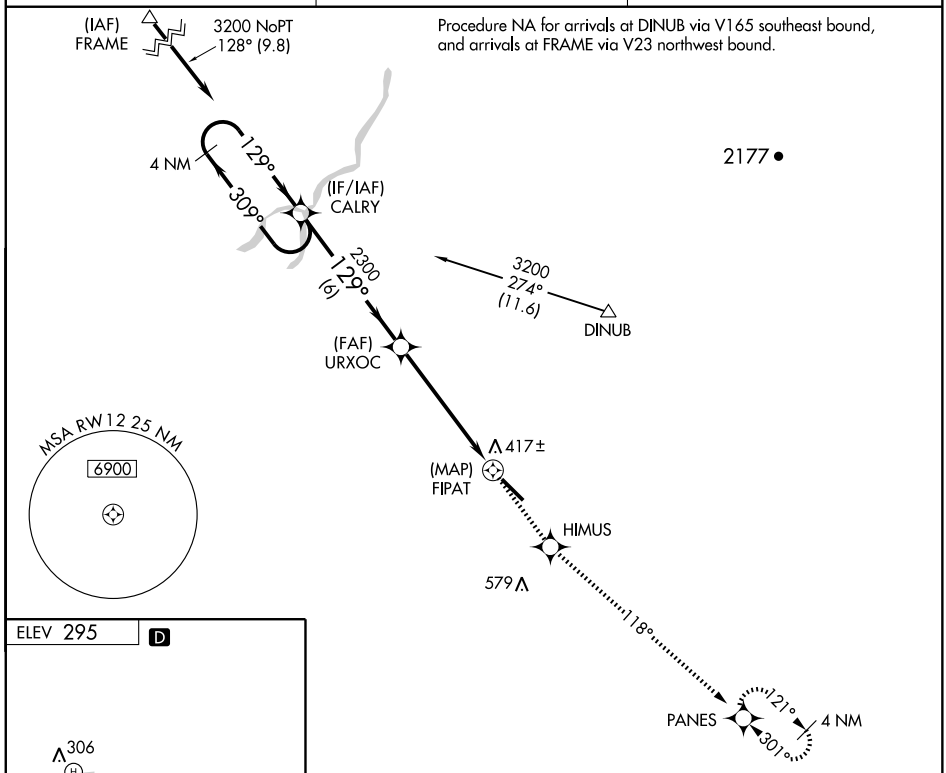
RNAV (GPS) RWY 12
VISALIA MUNI (VIS)

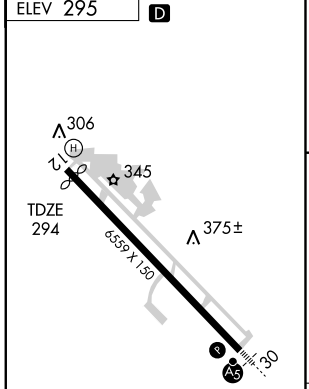
DME/DME RNP- 0.3 NA.
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Hanford altimeter setting and increase all MDA 40 feet and increase LNAV Cat C visibility ¼ mile.

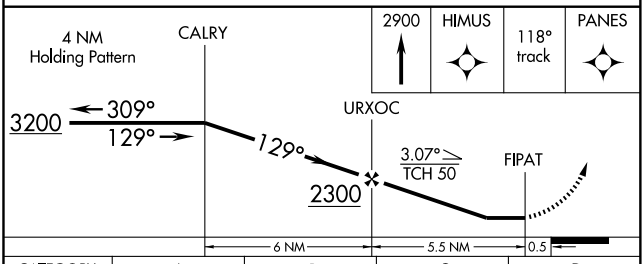
MISSED APPROACH: Climb to 2900 direct HIMUS and via 118° track to PANES and hold.

AWOS-3	FRESNO APP CON	UNICOM
119.925	118.5	123.05 (CTAF) L

Procedure NA for arrivals at DINUB via V165 southeast bound, and arrivals at FRAME via V23 northwest bound.







CATEGORY	A	B	C	D
LNAV MDA	680-1 386 (400-1)			680-1¼ 386 (400-1¼)
CIRCLING	720-1 425 (500-1)	760-1 465 (500-1)	760-1½ 465 (500-1½)	860-2 565 (600-2)

HIRL Rwy 12-30 L

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	5635
301°	TDZE	295
	Apt Elev	295

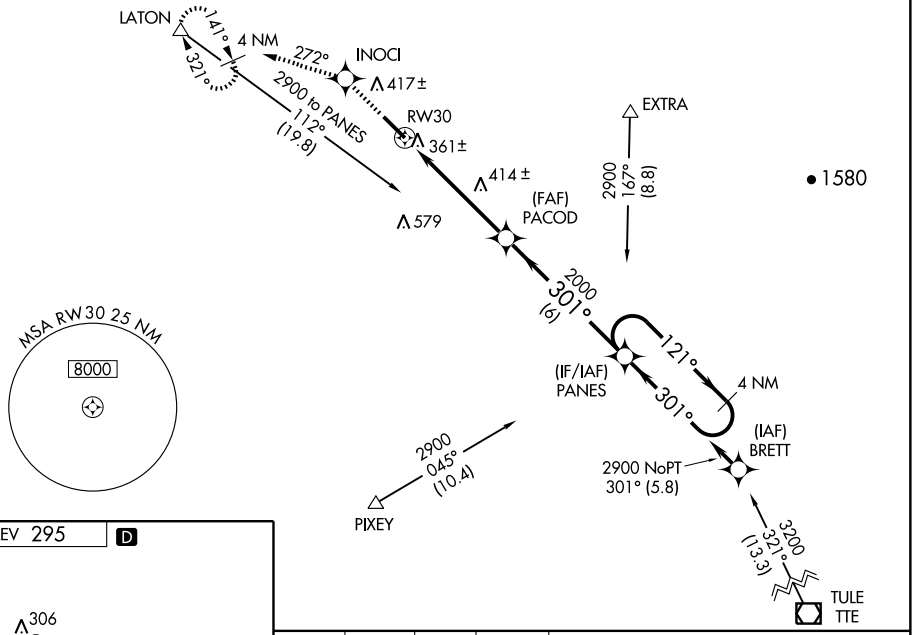
RNAV (GPS) RWY 30
VISALIA MUNI (VIS)

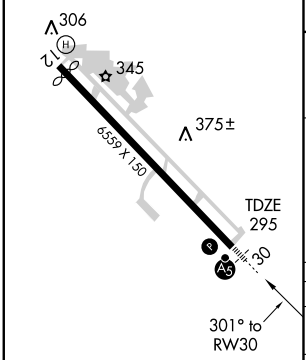
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP- 0.3 NA.
When local altimeter setting not received, use Hanford altimeter setting and increase all DA/MDA 40 feet and increase LNAV Cat C visibility ¼ mile.
Baro-VNAV and VDP NA when using Hanford altimeter setting.
For inoperative MALSR when using local altimeter and Hanford altimeter setting, increase LNAV Cat D visibility to 1¼ mile.

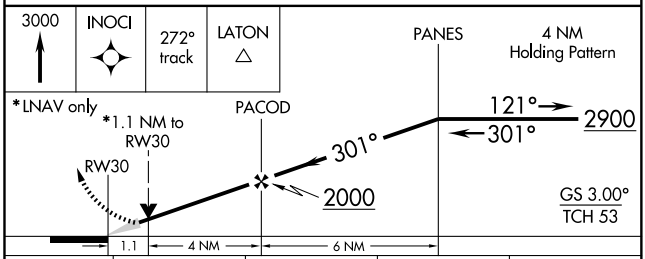
MALSR

MISSED APPROACH: Climb to 3000 direct INOCI and via 272° track to LATON and hold, continue climb-in-hold to 3000.

AWOS-3	FRESNO APP CON	UNICOM
119.925	118.5	123.05 (CTAF) L







CATEGORY	A	B	C	D
LNAV/VNAV DA	626-¾ 331 (400-¾)			
LNAV MDA	680-½ 385 (400-½)			680-1 385 (400-1)
CIRCLING	720-1 425 (500-1)	760-1 465 (500-1)	760-1½ 465 (500-1½)	860-2 565 (600-2)

HIRL Rwy 12-30 L

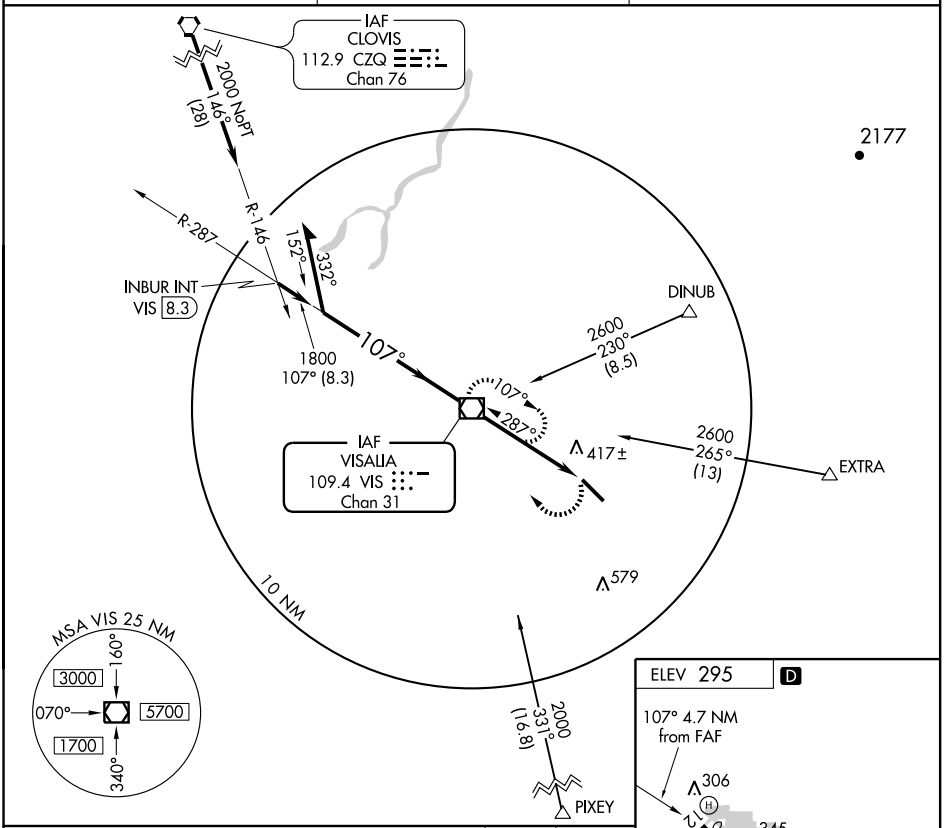
SW-2, 14 JAN 2010 to 11 FEB 2010

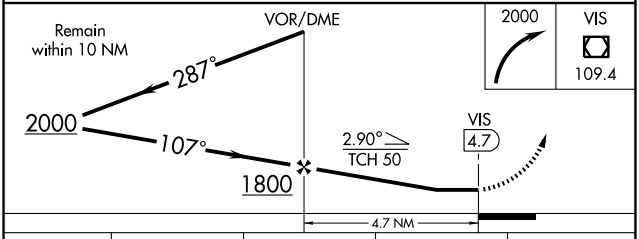
VOR/DME VIS	APP CRS	Rwy Idg	5635
109.4	107°	TDZE	294
Chan 31		Apt Elev	295

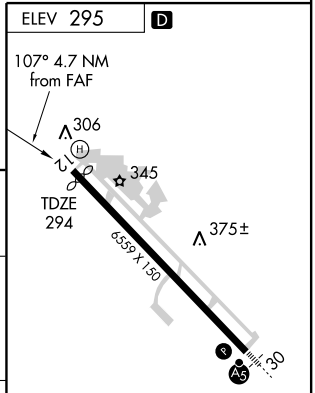
VOR RWY 12
VISALIA MUNI (VIS)

MISSED APPROACH: Climbing right turn to 2000 direct VIS VOR/DME and hold.

AWOS-3	FRESNO APP CON	UNICOM
119.925	118.5	123.05 (CTAF) L







CATEGORY	A	B	C	D
S-12	680-1 386 (400-1)			680-1¼ 386 (400-1¼)
CIRCLING	720-1 425 (500-1)	760-1 465 (500-1)	760-1½ 465 (500-1½)	860-2 565 (600-2)

HIRL Rwy 12-30 L

FAF to MAP 4.7 NM

Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

SW-2, 14 JAN 2010 to 11 FEB 2010

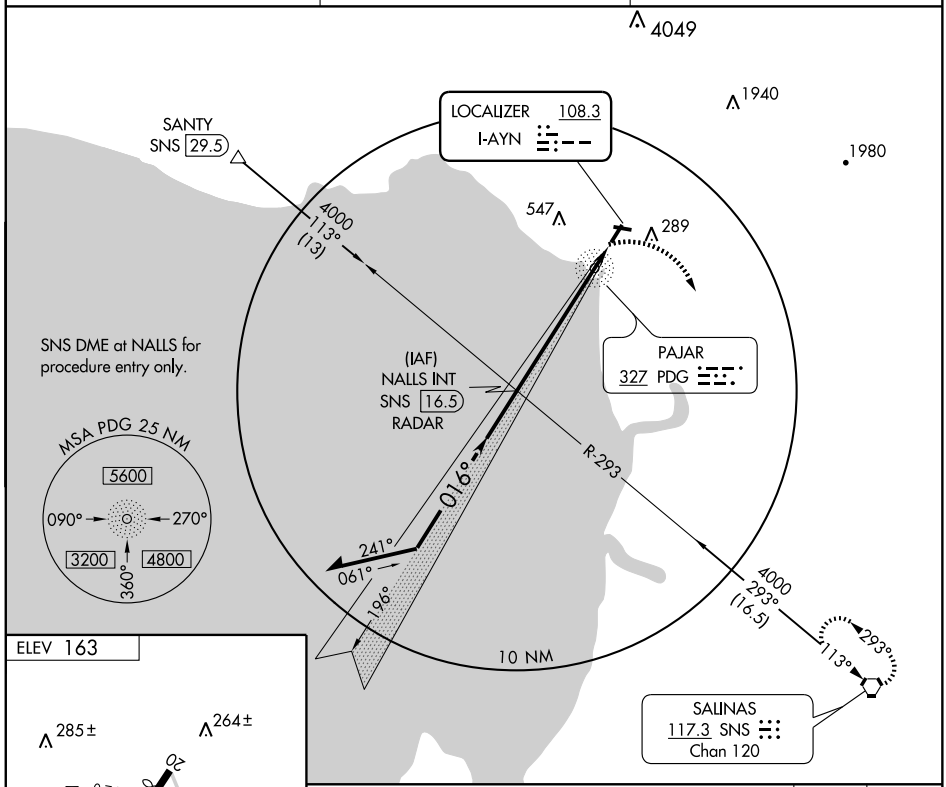
LOC I-AYN 108.3	APP CRS 016°	Rwy Idg 4501 TDZE 152 Apt Elev 163

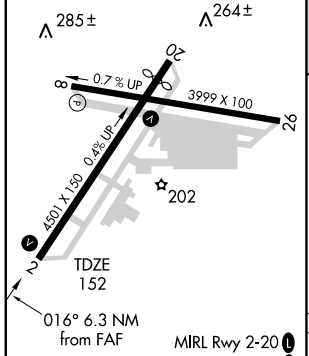
LOC RWY 2
WATSONVILLE MUNI (WVI)

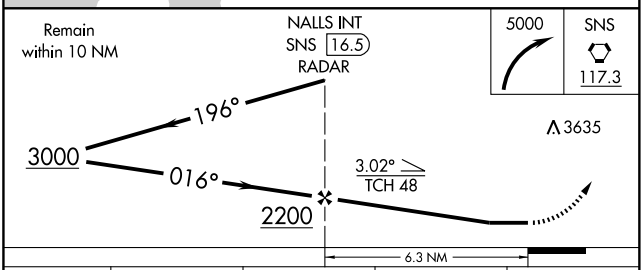
Circling not authorized west of Rwy 2-20. When local altimeter setting not received, use Monterey altimeter setting and increase all MDA 80 feet and visibility Cats C and D ¼ mile and circling Cat C ¼ mile.

MISSED APPROACH: Climbing right turn to 5000 direct SNS VORTAC and hold, continue climb-in-hold to 5000.

ASOS	NORCAL APP CON	UNICOM
132.275	127.15 307.125	122.8 (CTAF) L







FAF to MAP 6.3 NM					
Knots	60	90	120	150	180
Min:Sec	6:18	4:12	3:09	2:31	2:06

CATEGORY	A	B	C	D
S-2	680-1 528 (600-1)		680-1½ 528 (600-1½)	680-1¾ 528 (600-1¾)
CIRCLING	680-1 517 (600-1)		680-1½ 517 (600-1½)	720-2 557 (600-2)

NDB PDG	APP CRS	Rwy Idg	N/A
327	015°	TDZE	N/A
		Apt Elev	160

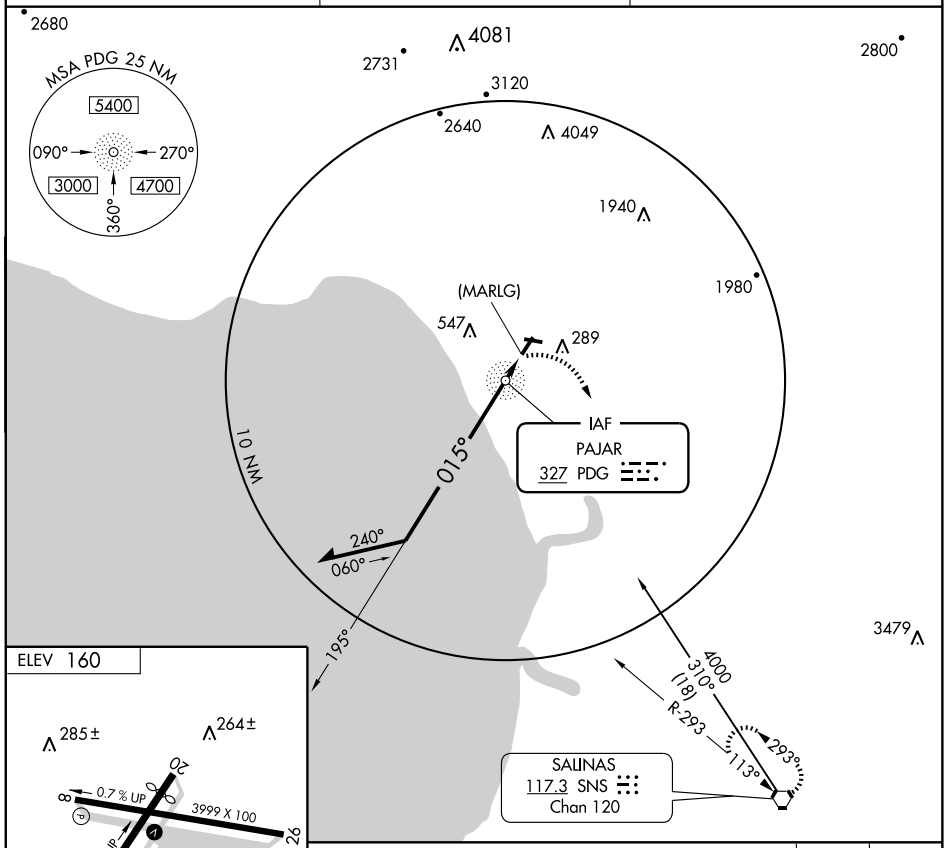
NDB or GPS-B
WATSONVILLE MUNI (WVI)

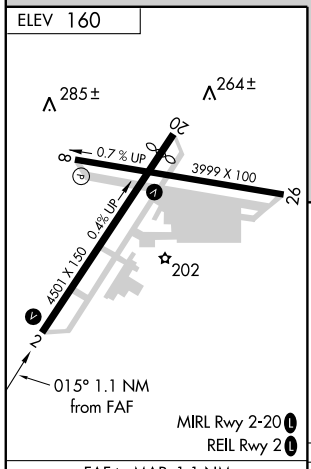
T
NA

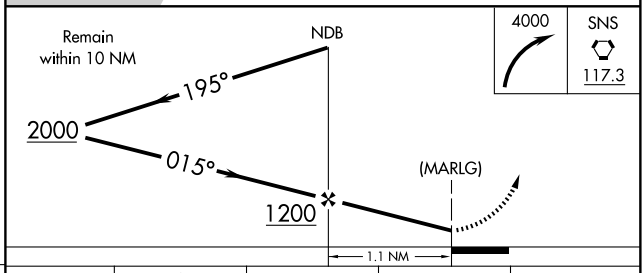
Circling not authorized west of Rwy 2-20.

MISSED APPROACH: Climbing right turn to 4000 direct SNS VORTAC and hold.

ASOS	NORCAL APP CON	UNICOM
132.275	127.15 307.125	122.8 (CTAF) L







FAF to MAP 1.1 NM					
Knots	60	90	120	150	180
Min:Sec	1:06	0:44	0:33	0:26	0:22

CATEGORY	A	B	C	D
CIRCLING	900-1 740 (800-1)		900-2 740 (800-2)	900-2¼ 740 (800-2¼)

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC SNS 117.3 Chan 120	APP CRS 314°	Rwy Idg N/A TDZE N/A Apt Elev 160

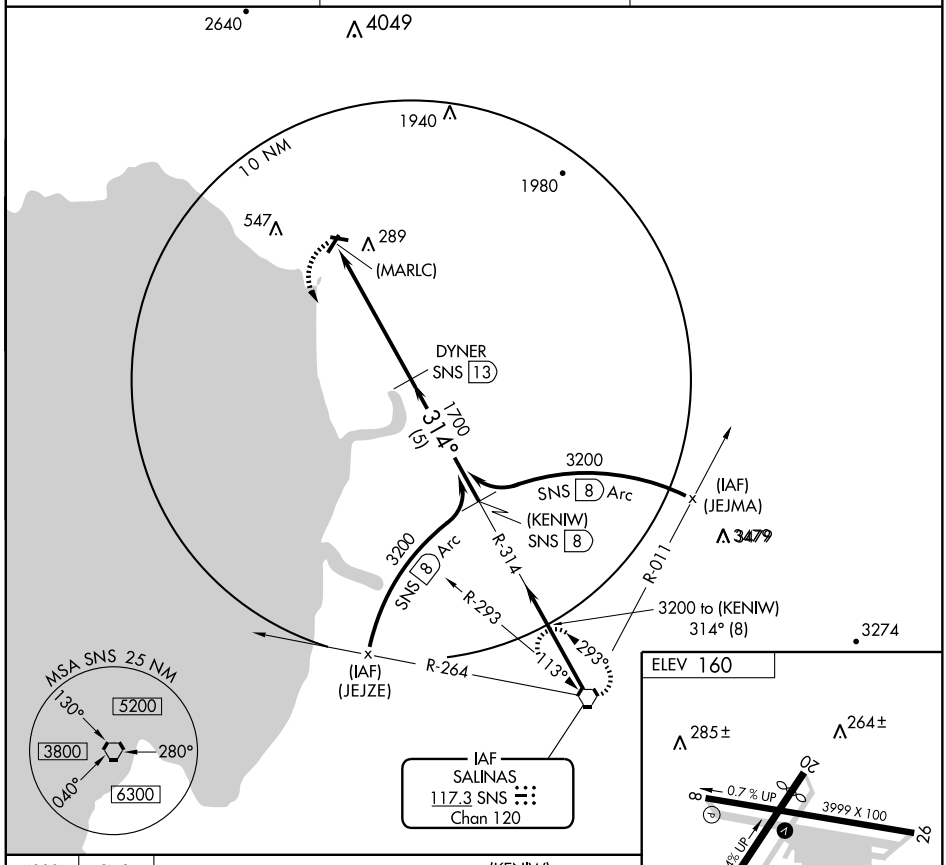
VOR/DME or GPS-A
WATSONVILLE MUNI (WVI)

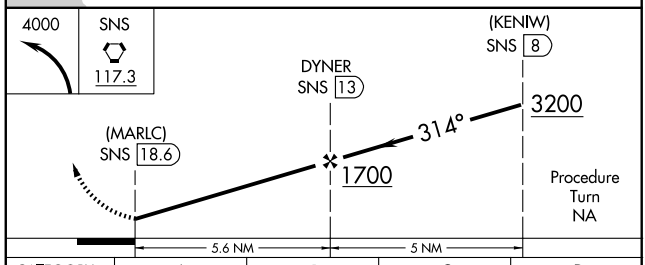
T
NA

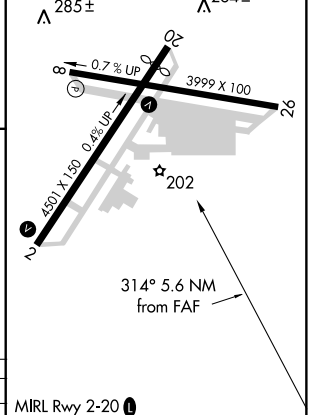
Circling not authorized west of Rwy 2-20.

MISSED APPROACH: Climbing left turn to 4000 direct SNS VORTAC and hold.

ASOS	NORCAL APP CON	UNICOM
132.275	127.15 307.125	122.8 (CTAF) L





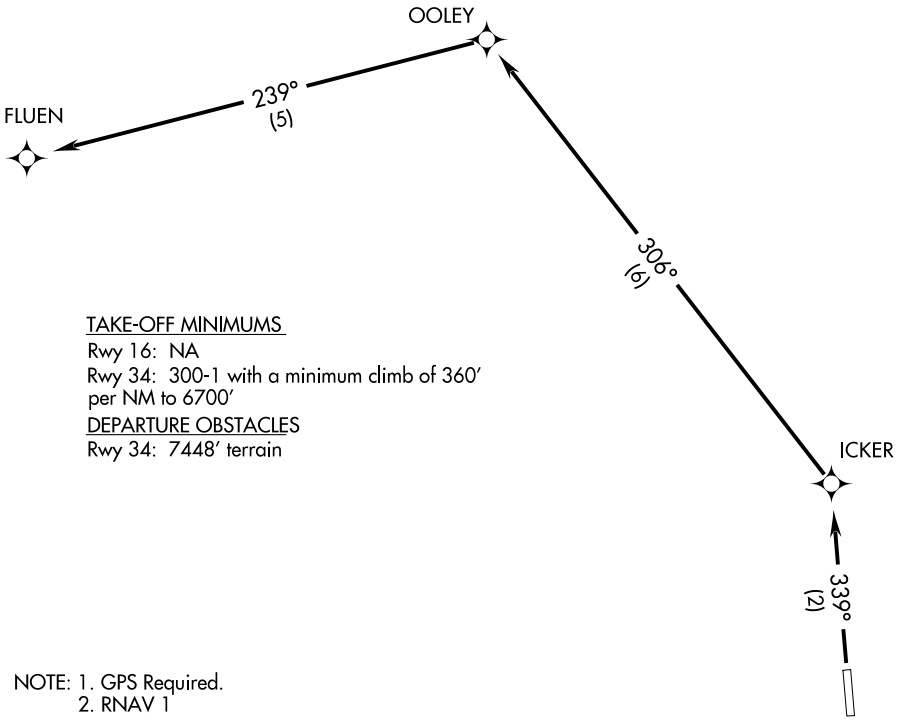


CATEGORY	A	B	C	D
CIRCLING	1300-1¼ 1140 (1200-1¼)	1300-1½ 1140 (1200-1½)	1300-3 1140 (1200-3)	

MIRL Rwy 2-20 L
REIL Rwy 2 L

FLUEN ONE DEPARTURE (RNAV) (OBSTACLE)

OAKLAND CENTER
132.2 350.3
UNICOM 122.8 (CTAF) L



TAKE-OFF MINIMUMS
Rwy 16: NA
Rwy 34: 300-1 with a minimum climb of 360′ per NM to 6700′
DEPARTURE OBSTACLES
Rwy 34: 7448′ terrain

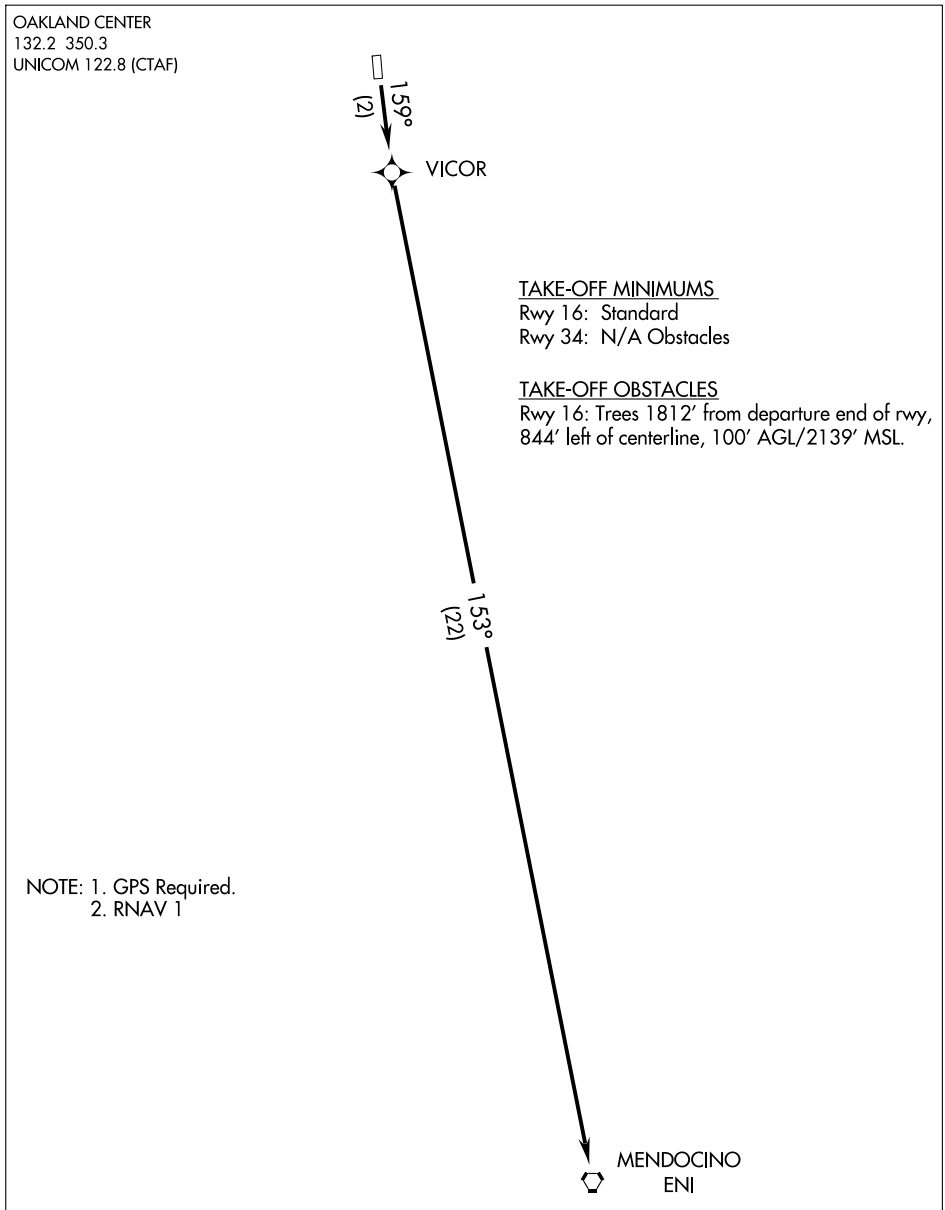
NOTE: 1. GPS Required.
2. RNAV 1

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 34: Climb via 339° course to ICKER WP, then via 306° course to OOLEY WP, then via 239° course to FLUEN WP, thence proceed on course.

SW-2, 14 JAN 2010 to 11 FEB 2010

MENDOCINO ONE DEPARTURE (RNAV) (OBSTACLE)



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 16: Climb to 6000 direct VICOR WP, then via 153° track to ENI VORTAC, thence proceed on course.

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3000
145°	TDZE	2063
	Apt Elev	2063

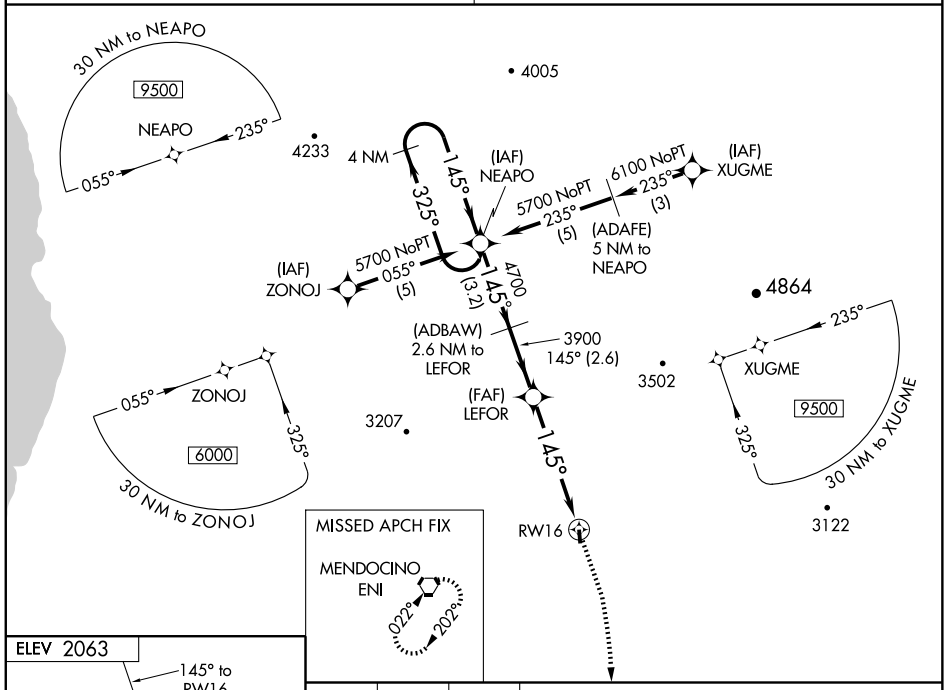
RNAV (GPS) RWY 16

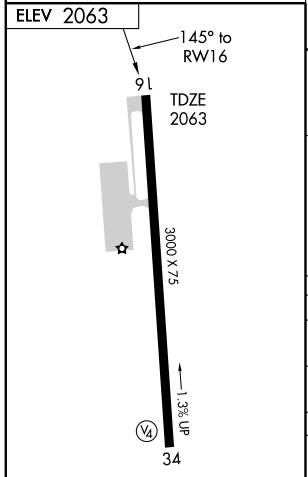
WILLITS/ELLS FIELD-WILLITS MUNI (028)

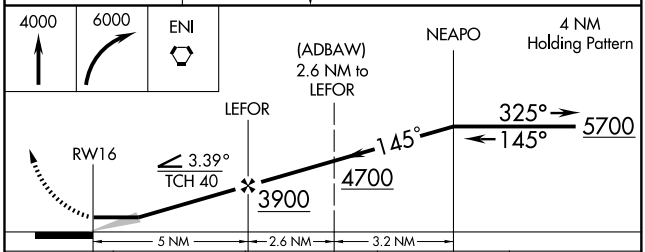
Obtain local altimeter setting on CTAF, when not received use Ukiah Muni altimeter setting.
Circling NA west of Rwy 16-34.
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 4000 then climbing right turn to 6000 direct ENI VORTAC and hold.

OAKLAND CENTER	UNICOM
132.2 350.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	3340-1¼ 1277 (1300-1¼)	3340-1½ 1277 (1300-1½)	3340-3 1277 (1300-3)	NA
CIRCLING	3340-1¼ 1277 (1300-1¼)	3340-1½ 1277 (1300-1½)	3340-3 1277 (1300-3)	NA
UKIAH MUNI ALTIMETER SETTING				
LNAV MDA	3600-1¼ 1537 (1600-1¼)	3600-1½ 1537 (1600-1½)	3600-3 1537 (1600-3)	NA
CIRCLING	3600-1¼ 1537 (1600-1¼)	3600-1½ 1537 (1600-1½)	3600-3 1537 (1600-3)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3000
339°	TDZE	2063
	Apt Elev	2063

RNAV (GPS) RWY 34

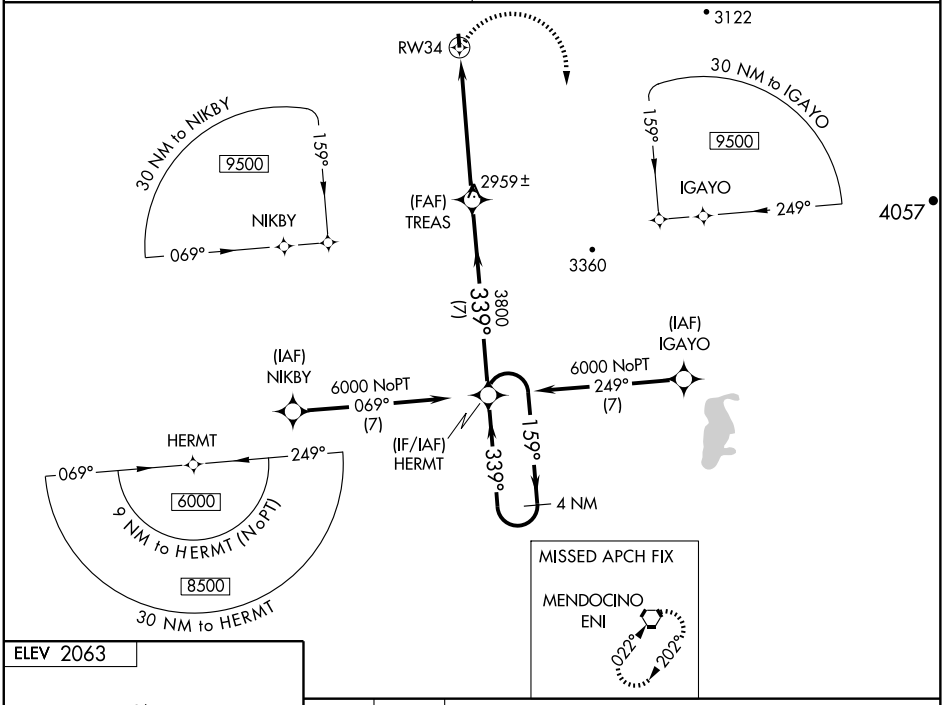
WILLITS/ELLS FIELD-WILLITS MUNI (O28)

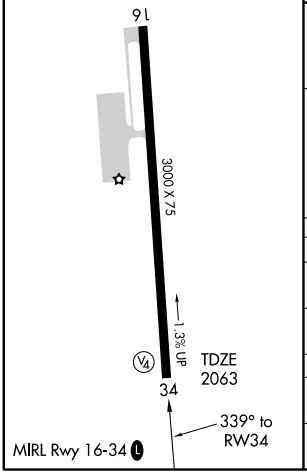
T NA — Obtain local altimeter setting on CTAF, when not received use Ukiah altimeter setting. Circling NA west of Rwy 16-34. GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

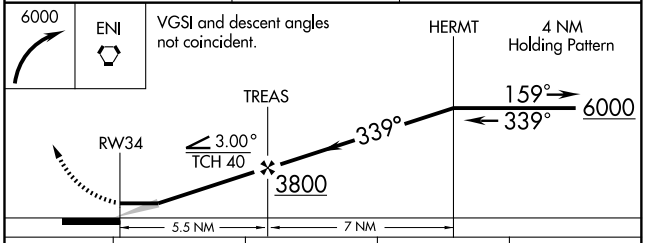
MISSED APPROACH: Climbing right turn to 6000 direct ENI VORTAC and hold.

OAKLAND CENTER 132.2 350.3

UNICOM 122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	2780-1 717 (800-1)		2780-2 717 (800-2)	NA
CIRCLING	2780-1 717 (800-1)		2780-2 717 (800-2)	NA
UKIAH MUNI ALTIMETER SETTING MINIMUMS				
LNAV MDA	3020-1¼ 957 (1000-1¼)	3020-1½ 957 (1000-1½)	3020-3 957 (1000-3)	NA
CIRCLING	3020-1¼ 957 (1000-1¼)	3020-1½ 957 (1000-1½)	3020-3 957 (1000-3)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	4125
343°	TDZE	136
	Apt Elev	139

GPS RWY 34

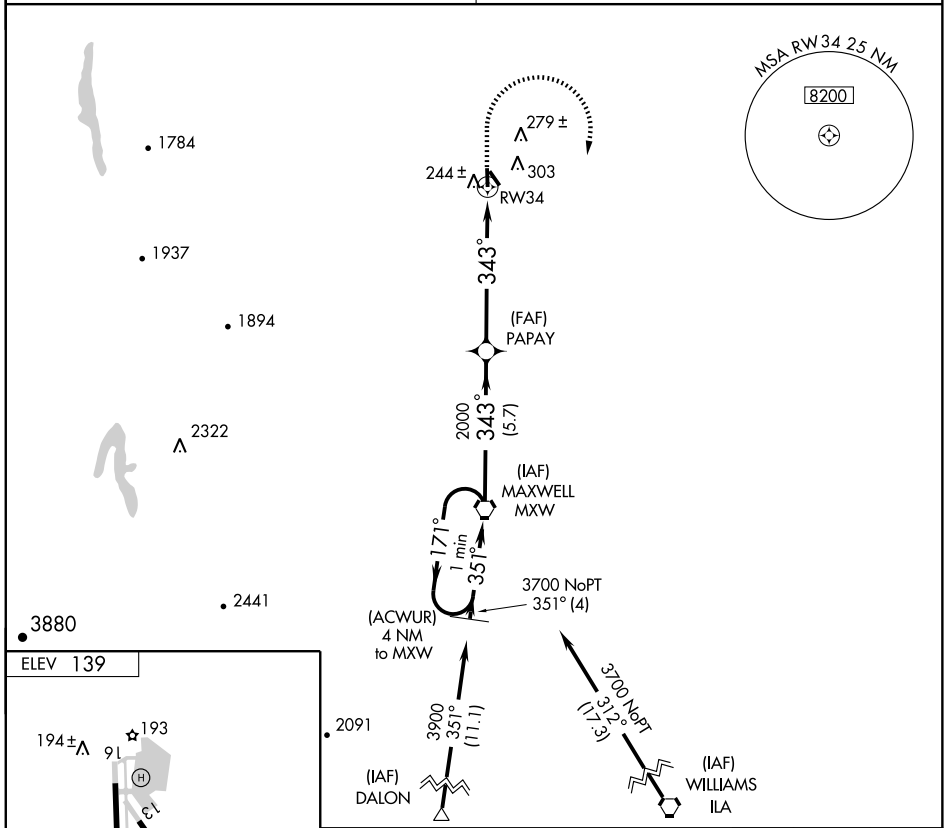
WILLOWS-GLENN COUNTY(WLW)

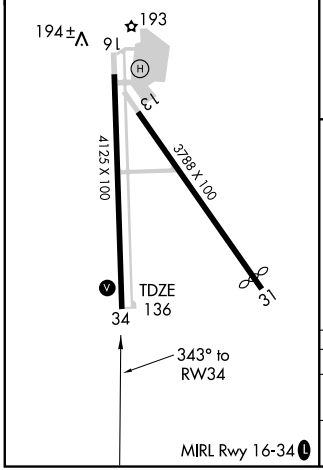
T
NA

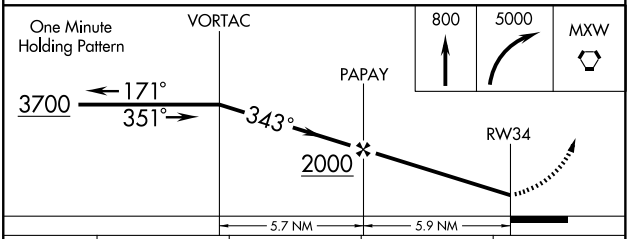
Use Oroville Muni altimeter setting.

MISSED APPROACH: Climb to 800 then climbing right turn to 5000 direct MXW VORTAC and hold.

OAKLAND CENTER	UNICOM
132.2 350.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-34	580-1	444 (500-1)	580-1¼ 444 (500-1¼)	NA
CIRCLING	680-1	541 (600-1)	680-1½ 541 (600-1½)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC MXW	APP CRS	Rwy Idg	4125
110.0	342°	TDZE	136
Chan 37		Apt Elev	139

VOR/DME RWY 34

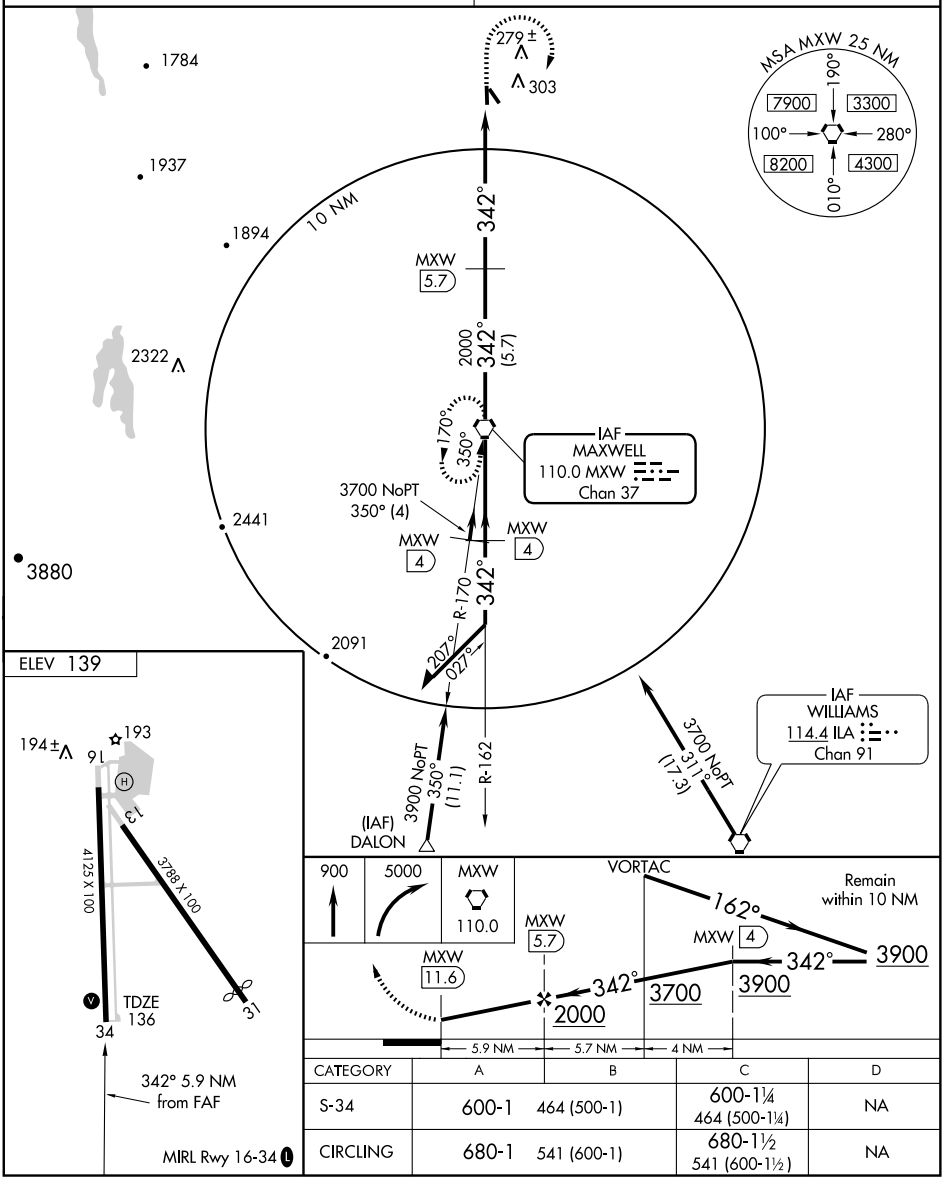
WILLOWS-GLENN COUNTY (WLW)

T
NA

Use Oroville Muni altimeter setting.

MISSED APPROACH: Climb to 900 then climbing right turn to 5000 direct MXW VORTAC and hold.

OAKLAND CENTER	UNICOM
132.2 350.3	122.8 (CTAF) L



CATEGORY	A	B	C	D
S-34	600-1	464 (500-1)	600-1¼ 464 (500-1¼)	NA
CIRCLING	680-1	541 (600-1)	680-1½ 541 (600-1½)	NA

SW-2, 14 JAN 2010 to 11 FEB 2010

APP CRS	Rwy Idg	3385
004°	TDZE	125
	Apt Elev	125

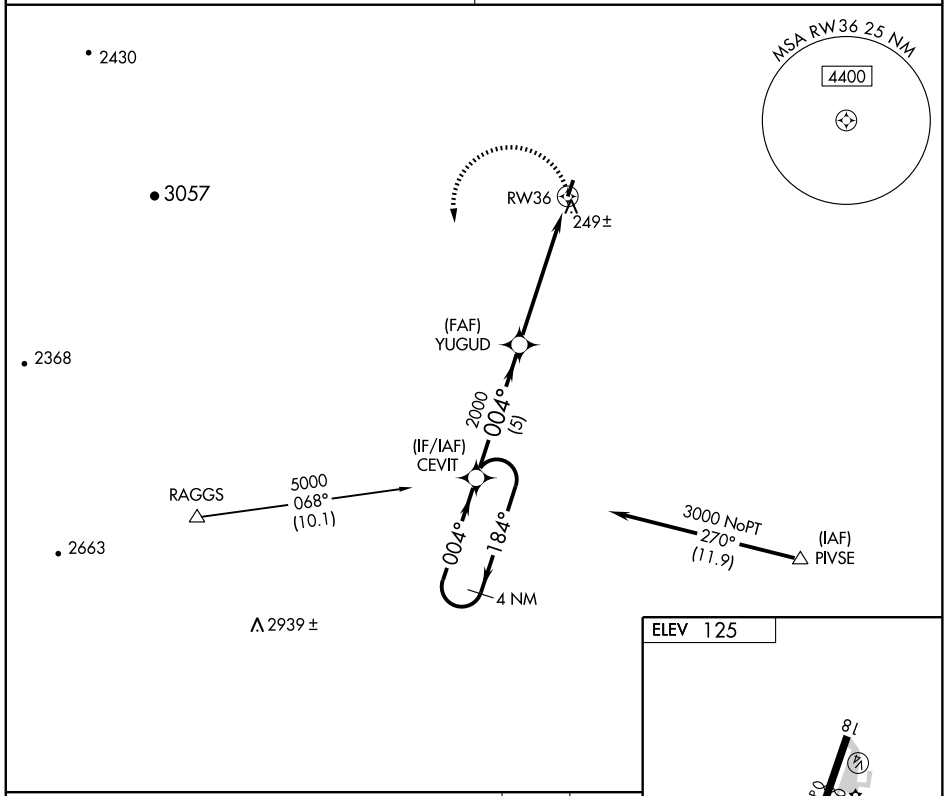
RNAV (GPS) RWY 36

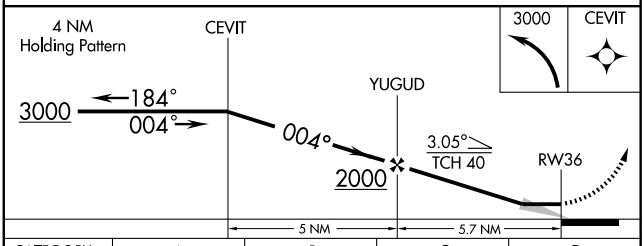
WOODLAND/ WATTS-WOODLAND (041)

DME/DME RNP- 0.3 NA.
Procedure NA at night.
Use Sacramento Intl altimeter setting; when not received, use Sacramento Executive altimeter setting and increase all MDA 20 feet.

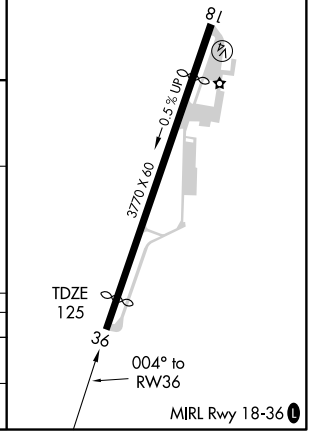
MISSED APPROACH: Climbing left turn to 3000 direct CEVIT and hold.

TRAVIS APP CON	UNICOM
126.6 291.0	122.8 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	560-1	435 (500-1)	NA	
CIRCLING	620-1	495 (500-1)	NA	



SW-2, 14 JAN 2010 to 11 FEB 2010

VORTAC SAC	APP CRS	Rwy Idg	N/A
115.2	296°	TDZE	N/A
Chan 99		Apt Elev	125

VOR/DME-A

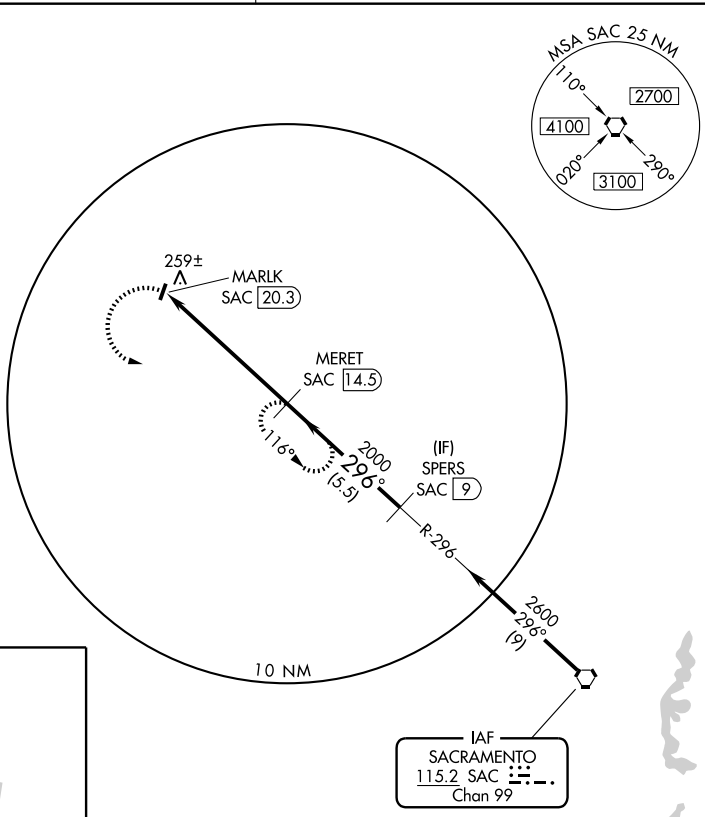
WOODLAND/WATTS-WOODLAND (041)

Procedure NA at night.
NA Use Sacramento Intl altimeter setting; when not received, use Sacramento Executive altimeter setting and increase all MDA 20 feet.

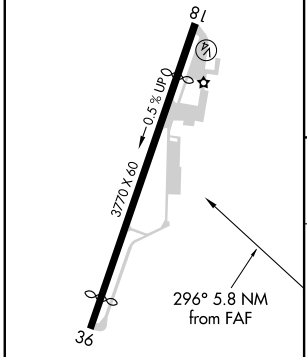
MISSED APPROACH: Climbing left turn to 2000 via SAC VORTAC R-296 to MERET/14.5 DME and hold.

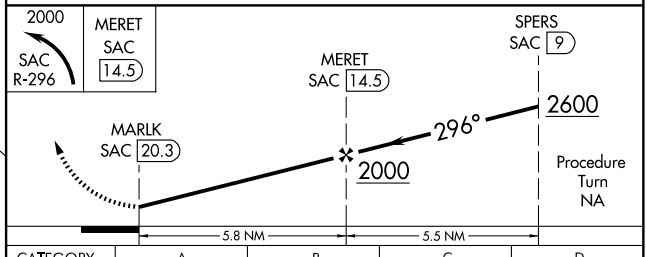
TRAVIS APP CON	UNICOM
126.6 291.0	122.8 (CTAF) L

1940



Procedure NA for arrival on SAC VORTAC airway radials 257 CW 329.





CATEGORY	A	B	C	D
CIRCLING	620-1 495 (500-1)	620-1¼ 495 (500-1¼)	NA	

MIRL Rwy 18-36 L

SW-2, 14 JAN 2010 to 11 FEB 2010